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PART 1.—ORIGINAL ARTICLES.

Teachings of the Sphygmograph in General Paralysis of the Insane. By W. BEVAN LEWIS, L.R.C.P., Lond., Senior Assist. Med. Officer, West Riding Asylum.

The pulse-tracing in general paralysis has never been thoroughly investigated, and although the tracing said to be characteristic of this affection has been figured and described in several works, I have looked in vain for those records of the amount of arterial tension as estimated by the pressure gauge, without which a mere pulse-tracing is of little reliance and value. I have therefore endeavoured to supply in part this want by a detailed account of the sphygmograms taken in about forty cases of general paralysis, with records of tension measurement and occlusion pressure, the latter taken by Dr. Handfield Jones' sphygmometer, which registers a pressure of 20 up to 600 grammes. The tracings have been all taken, by means of a very perfect sphygmograph, upon smoked enamelled paper, and every source of fallacy which could possibly be eliminated was very carefully excluded.

Analysis of the Sphygmograms.

The first glance over a series of tracings taken of the pulse of these forty general paralytics enables us to divide them naturally into two groups, in which the very opposite conditions of arterial tension are indicated. The first of these groups, and by far the smaller of the two, presents us with the following features upon analysing the elements entering into the tracing:—

Percussion Impulse (No. 1).—This is represented by an almost vertical line of moderate height, with an acute or else a very slightly rounded summit. The factors engaged

in this primary constituent of a pulse-tracing are the degree of arterial tension, and the quality of the ventricular contraction as regards energy and rapidity of stroke. A sharply-contracting powerful ventricle contributes towards a vertical and high percussion impulse, whilst this same quality of the percussion element is still further favoured by a relaxed condition of the arterial tunics. Both a moderate degree of cardiac energy, as well as a diminished arterial tension, are demonstrated in this group of tracings, the latter state being further indicated by a dicrotic wave.

Tidal Wave.—In a few tracings its descent is somewhat sudden (1); in others it tends towards the formation of a rounded summit. It is usually small, shallow, and slopes obliquely downwards, varying much in definition and size. Its general character therefore is that of low tension.

Dicrotic Wave.—The tidal wave ends abruptly in a well-marked aortic notch, from which a dicrotic wave of some height is projected. Amongst the very numerous and diverse hypotheses advanced to account for the phenomenon of dicrotism, the most satisfactory indicate that it is due to a complicated agency, including probably numerous factors in its origination. Yet whether the greater share in its production be claimed for the succussion caused by closure of the aortic valves, the supplemental aortic contraction, or the return wave from the peripheral arterioles, of one fact we may assure ourselves—that arterial and capillary relaxation favours dicrotism (Galabin), whilst the reverse condition wholly obliterates the wave. From this point of view, therefore, dicrotism is closely associated with the more or less efficient support of the column of blood projected into the arteries at each ventricular contraction, being the invariable accompaniment of lowered blood pressure.

Let us now turn our attention to the second series of tracings, which form the larger proportion of those obtained from general paralytics.

Percussion Impulse (see Nos. 2, 3, 4).—This element is extremely shallow, and directed obliquely upwards. The obliquity of this line appears more developed in proportion to the shallowness of the tracing, and in well-marked cases is directly continuous with the tidal wave, so that the shallow upstroke ends in a convex summit (Cf. 5).

Tidal Wave.—This is one of the most marked features of the tracing. It is prominent, strongly convex, and *sustained*

so that its *concavity looks directly downwards*. In some very shallow tracings the percussion element is so merged in the tidal wave that it is impossible to state where one ends and the other begins (Nos. 5 and 6). In the more characteristic form, however, the tidal wave is projected horizontally forwards from the summit of the oblique percussion stroke. The tidal wave ends in an aortic notch, which in the larger number of tracings is well marked, evidencing a satisfactory competence of the semilunar valves; but in the shallower tracings this notch becomes wholly or very nearly obliterated (Nos. 5, 6, 7).

Dicrotic Wave.—This element is conspicuous by its absence, or by its very feeble development, there being no tendency to a pronounced diastolic expansion, which was so prominent a feature in our first series of cases. A slight tendency towards diastolic expansion is seen in Nos. 4 and 8, and these tracings may be advantageously compared with Nos. 2 and 5, where dicrotism is wholly absent. As with the aortic notch, so the dicrotic wave tends to disappear in all the shallower tracings.

Now the above elements constitute a tracing which is obtained in the vast majority of cases of general paralysis—what are the indications afforded by them? Just as the first series of tracings indicate a low ebb of blood pressure, so these latter point to an increased arterial tension. The indications of increased blood pressure are seen in the shallow oblique percussion element, the sustained systolic expansion figured in the tidal curve, the feeble development or entire absence of dicrotism, and lastly the high registry of pressure requisite for obtaining a faithful tracing. The most notable features of the tracing are the sustained tidal wave and the extremely shallow percussion element, the latter having as one of its most important factors a feebly contracting ventricle, or, at least, one whose energy is inadequate to the demands encountered, whilst the former bespeaks the obstruction to the circulation ahead, and the tardy laboured force *a tergo*. It requires but a slight familiarity with the pulse-tracing of chronic Bright's disease to recognise in the sphygmogram of general paralysis a miniature reproduction of the same curves. I say a miniature copy advisedly, for if, *cat. par.*, a high percussion stroke be given to one of these tracings—say No. 4, such as would occur from the stroke of a powerfully acting hypertrophied

ventricle—we should get a tracing very similar, if not quite identical with that characteristic of arterio-capillary fibrosis. And it is herein that the distinction between the two tracings becomes apparent. The tracing in chronic Bright's disease gives evidence of *very high* arterial tension, the percussion impulse indicating compensatory hypertrophy of the ventricle. On the other hand, in general paralysis, the arterial tension is increased, *but not nearly to the same extent*, whilst the feeble oblique upstroke appears significant of an insufficient cardiac energy. In general paralysis, therefore, the tracing would appear to indicate the existence of a *primary cardiac enfeeblement* which is the origin of a torpid circulation and venous engorgement, leading to the obstructed tidal wave delineated in our charts. If, as I opine, this be the correct reading of these tracings, surely we have presented to us here, on comparison of the pulse-curves and the pressure and occlusion gauge, valuable prognostic and therapeutic indications.

Venous engorgement may even be an important factor in the production of the epileptiform seizures of general paralysis. In Case 9, where we have a tricrotic pulse-tracing, the most continuous and violent epileptiform convulsions I have ever seen occurred quite unchecked by all the usual remedies, including chloral in large doses and ether inhalation; yet bleeding freely from the cephalic vein had an almost magical effect in arresting the convulsions, which did not recur again for many months.

The Pressure Gauge.—The registry of the pressure requisite for the production of a perfect tracing gives, as an average for both sexes, $4\frac{1}{2}$ ozs., thus further confirming the reading of the sphygmograms as one of increased arterial pressure. In the low tension pulse (No. 1) we find $2\frac{1}{2}$ ozs. alone required. In the latest stage of general paralysis the cardiac enfeeblement has so far progressed that, although the tracing maintains its characteristic curves, the pressure gauge shows a much lower registry. Thus the minimum pressure for both sexes was 2.16 ozs., whilst in six out of the twenty female cases not more than two to three ozs. were required, and all these, *without exception, were advanced in the third stage*. The tracings in all six were very shallow, and plainly indicated cardiac failure. On the other hand, eleven out of twenty males required a pressure of five to six ozs. to elicit the correct tracing, and an examination of the registry of pressure appended will indicate that cardiac

enfeeblement was not so marked a feature as in the other sex.

Occlusion Pressure.—The average occlusion pressure for both sexes was below 400 grammes (12·9 ozs.), and this gauge of the energy of the ventricular contraction therefore clearly indicates an enfeebled muscle; for, taking into consideration the constant element of obstructed circulation ahead, the cardiac energy hereby exhibited is surely inadequate. The average occlusion pressure was higher in the male patients (14·9 ozs.) than in the females (11·3 ozs.) As before stated, the male cases showed a more satisfactory contractile energy about the heart's muscle, the occlusion pressure in six out of the sixteen males running as high as 16 to 20 ounces. On the other hand, the minimum occlusion pressure was but 150 grammes (5 ozs.), occurring in a female (E. P.) very far advanced in the last stage of general paralysis.

Table of General Paralytics examined.

	Initials of Name.	Pulse and Respiration.	Tracing Pressure.	Occlusion Pressure.
Females.	S. A. L.	$\frac{80}{20}$	150 grammes.	550 grammes.
"	E. A. W.	$\frac{92}{12}$	70	450
"	A. T.	$\frac{88}{22}$	140	250
"	A. D.	$\frac{96}{18}$	160	350
"	M. M.	$\frac{80}{24}$	150	350
"	A. W.	$\frac{72}{20}$	150	350
"	J. A.	$\frac{84}{20}$	180	350
"	L. B.	$\frac{96}{28}$	130	450
"	A. W.	$\frac{84}{28}$	130	350
"	J. O.	$\frac{100}{28}$	70	350
"	M. S.	$\frac{96}{28}$	70	
"	E. B.	$\frac{100}{24}$	85	250
"	M. D.	$\frac{92}{25}$	150	250
"	M. L.	$\frac{72}{10}$	90	250
"	J. B.	$\frac{80}{24}$	65	350
"	A. L.	$\frac{96}{18}$	180	350
"	J. H.	$\frac{88}{21}$	150	
"	E. P.	$\frac{92}{20}$	140	150
"	E. P.	$\frac{80}{24}$	150	200
"	S. C.	$\frac{64}{24}$		550
Males.	H. J.	$\frac{80}{24}$	75	350
"	E. E.	$\frac{70}{34}$	170	400
"	G. A.	$\frac{88}{20}$	160	300
"	W. H.	$\frac{44}{20}$	75	500

	Initials of Name.	Pulse and Respiration.	Tracing Pressure.	Occlusion Pressuse.
Males.	J. H.	$\frac{80}{16}$	130 grammes.	500 grammes.
	J. A.	$\frac{84}{20}$	180	350
	H. M.	$\frac{80}{20}$	130	550
	D. S.	$\frac{92}{24}$	170	450
	W. B.	$\frac{72}{16}$	170	450
	W. J.	$\frac{92}{20}$	110	450
	G. H.	$\frac{80}{20}$	120	300
	P. L.	$\frac{98}{27}$	130	400
	H. F.	$\frac{104}{36}$	150	500
	J. M.	$\frac{68}{16}$	170	300
	W. H.	$\frac{72}{14}$	180	350
	G. H.	$\frac{116}{16}$		
	H. W.	$\frac{64}{16}$	180	450
	R. H.	$\frac{86}{14}$	150	450
	W. A.	$\frac{82}{22}$	130	600
	P. M.	$\frac{102}{20}$	160	500

The late Prof. Garrod * has established certain laws as regards the relationship of cardiac energy to pulse rate, and that of arterial tension on the nutrition of the heart's walls, and we cannot do better than review our sphygmographic tracings by the light of his researches, which are of the greatest interest and importance. First, then, as to the relative length of systole and diastole in the tracings of general paralysis. By Garrod's law, *the length of the systole varies as the cube root of the rapidity of cardiac action*—the higher the pulse rate the longer will be the systole as compared with the diastolic period; in other words, the number of times the systole will be contained in the diastole will be lessened. Now this *comparative lengthening* of systole with an increasing pulse rate is a constant feature in all healthy individuals, and is a fact easily confirmed. In advanced cases of general paralysis, however, we find this law frequently departed from. In a certain number of cases the ratio may be normal, but in a large proportion, especially where the pulse rate is above 70, the relative duration of systole is shortened. Thus frequently, with a pulse rate of 96, we find the length of the systole conforms to that which is normal for a pulse rate of 65 to 70. Here, for instance, are eight cases of advanced general paralysis (all females), which, when compared with the ratios given for

* Proc. Roy. Soc., Nos. 120 and 126; Jo. Anat. and Phys., May and Nov., 1873; Pop. Science Rev., 1874.

the healthy pulse by Garrod, will at once prove the truth of the above assertion.

		Pulse Rate.	Ratio of Systole to whole length of beat.
J. O.	...	92	2·513
C. D.	...	92	2·477
T. C.	...	64	3·1
A. L.	...	96	2·785
L. B.	...	96	2·814
A. T.	...	88	2·784
M. S.	...	96	2·635
E. L.	...	80	2·896

It will be found that systolic periods in the above are all too short, and correspond to what in the normal state would be a less rapid pulse rate.

We may, therefore, fairly conclude that the heart fails to affect this compensatory adjustment of a lengthened systole to increased pulse-rate, and that this fact is another strong argument in favour of the diminished cardiac energy which has been affirmed to be so prominent a feature in this malady. There are two conditions associated with the above which would tend to counteract the evil consequences of this loss of normal ratio. In the first place, since "*the nutrition of the heart's walls appears to vary in proportion to the diastolic interval and directly as the blood pressure,*" so in our cases now under consideration the relatively lengthened diastole (the only period during which the coronary circulation is free) tends, along with the increased tension in the arteries, to favour the nutrition of the heart's walls, and so improve the energy of the ventricular systole. The progressive enfeeblement of the heart, which in spite of these otherwise favouring circumstances, points probably to a serious and deep-seated failure of its innervation.

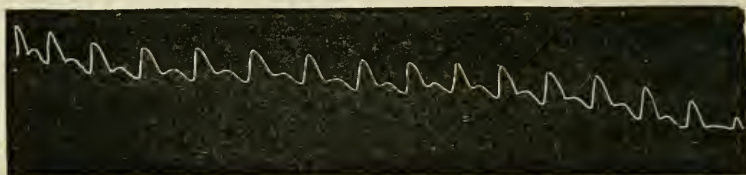
General Considerations.—The pulse-tracing of a healthy individual with lowered tension is introduced here to exhibit the notable departure from the norma in cases of general paralysis (No. 10).

A tracing from a case of chronic Bright's disease shows the much larger pulse and forcible systolic impulse given by an enlarged ventricle (No. 11, see also 12).

The tracings taken in the case of an epileptic, of a chronic maniac, and an acute dement, as well as of a patient suffering from hydrothorax, are also included, as representing

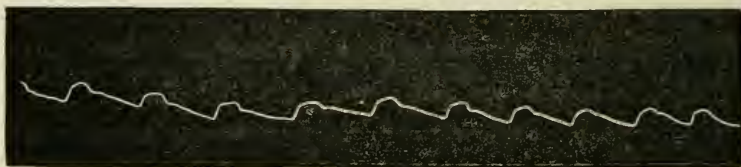
features almost identical with those borne by the tracing in general paralysis, and in all these cases there was full evidence of venous engorgement and a feebly acting heart. In all cases of acute dementia I have invariably obtained a similar tracing (Nos. 13, 14, 15 and 16).

The tracing in the case of S. A. (No. 17), is given to show the effect of sclerotic tremor upon the pulse curve, possibly explanatory of those minute secondary undulations which often occur in general paralysis. Lastly, two tracings are given to show the effect of digitalis upon a pulse of low tension, and the approximation thus obtained to the high tension pulse of general paralysis (Nos. 18 and 19).



No. 1*. W. H. (General Paralysis).

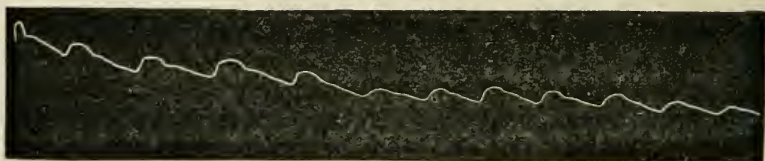
* For pulse, respiration, tracing and occlusion pressure, see Table.



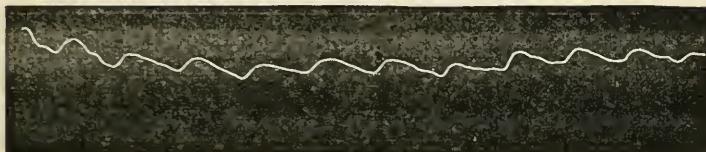
No. 2. A. W. (General Paralysis.)



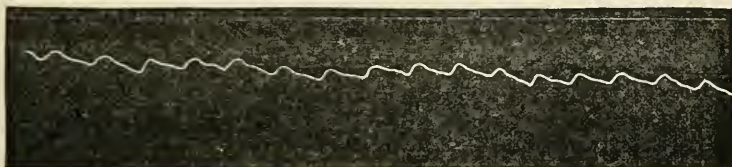
No. 3. W. A. (General Paralysis).



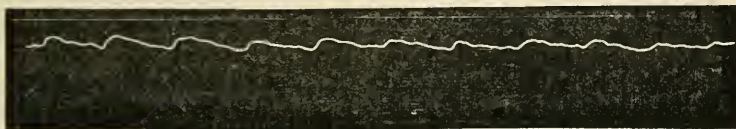
No. 4. M. L. (General Paralysis).



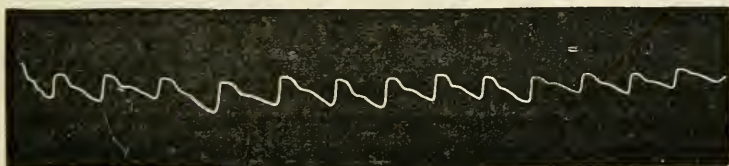
No. 5. A. W. General Paralysis).



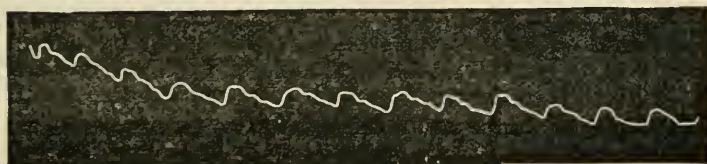
No. 6. J. A. (General Paralysis).



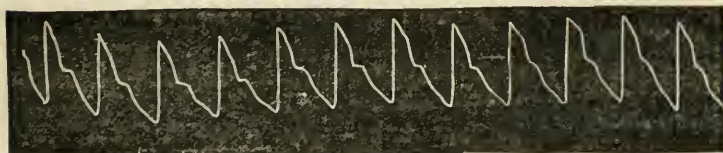
No. 7. S. A. L. (General Paralysis).



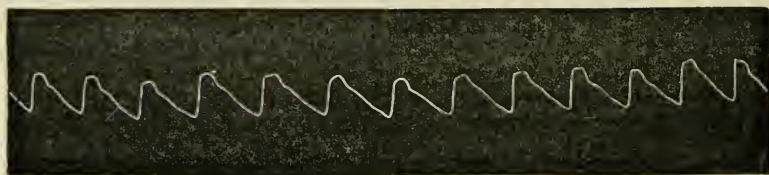
No. 8. J. O. (General Paralysis).



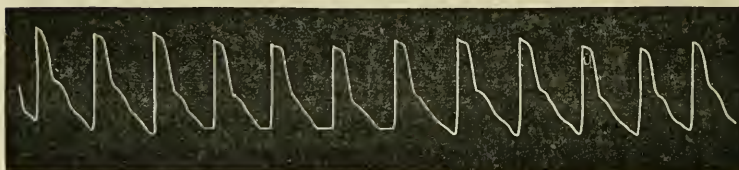
No. 9. P. L. (General Paralysis).



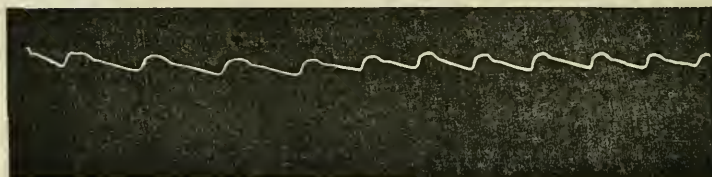
No. 10. W. T. L. (Pulse in Health).



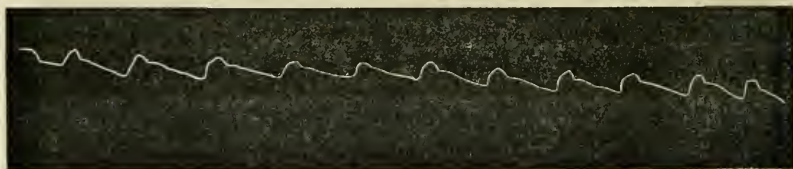
No. 11. M. M. (Bright's Disease).



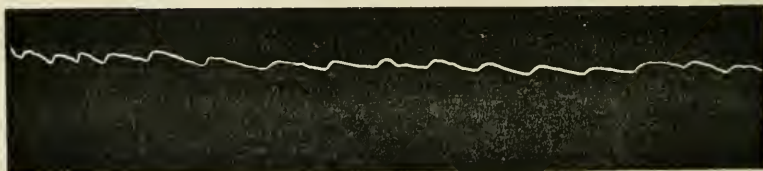
No. 12. Cardiac Hypertrophy with Valvular Incompetence.



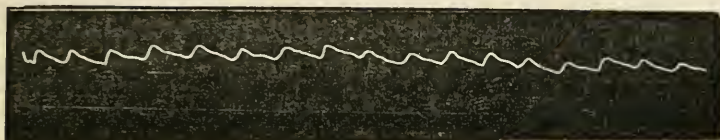
No. 13. J. B. (Epilepsy).



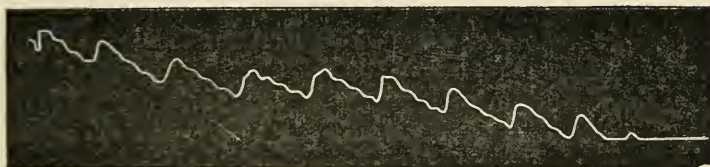
No. 14. A. L. (Chronic Mania).



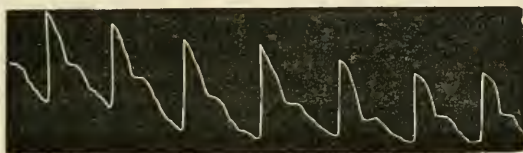
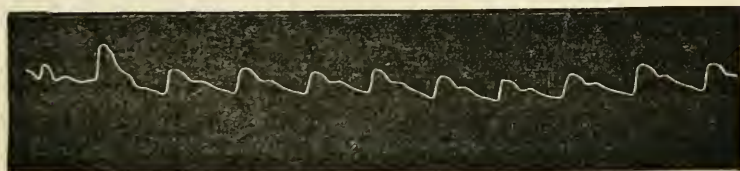
No. 15. E. F. (Acute Dementia).



No. 16. E. O. (Hydrothorax).



No. 17. S. A. (Multiple Sclerosis).

No. 18. Pulse of low tension in healthy individual *prior to* administration of Digitalis.No. 19. Pulse *after* two doses of Digitalis.

Cerebral Localisation. Illustrated by a Case of Brain-Injury.

By WILLIAM JULIUS MICKLE, M.D., Grove Hall Asylum,
London.*

In the human subject, strictly limited traumatic brain-lesions are among the pathological conditions which bear most clearly upon the problems of cerebral localisation. Necessarily these accidental experiments upon the human brain are sometimes as sharply localised as are the experiments of the physiologist upon the brains of lower animals. For the purposes of the physician, indeed, they are more instructive than the latter.

As one lesion in the following case, portions of the so-called motor-region of the cerebral cortex were partially or completely destroyed. They were those in which Ferrier places the centres for the following movements, mainly:—Movements of opposite leg and foot, as in locomotion; retraction and adduction of opposite arm; prehensile and other movements of hand; supination and flexion of the forearm; retraction and elevation of the opposite angle of the mouth; and, far less obviously, movements which open the eye, raise the lid, dilate the pupil, and turn the head and eyes to the opposite side; as well as certain other movements. The clinical phenomena agree with this fairly, so far as relates to the movements of the opposite lower extremity, and the retraction of the angle of the mouth; but not so far as concerns the movements of the upper limb of the opposite side. Even to nearly the last the biceps acted well, and the hand could readily be raised to the mouth, nor was the grasping power of the right hand relatively affected as much as it should have been according to Ferrier's conclusions.

As to isolated movements of the arm, this case supports the view of Carville and Duret, rather than that of Charcot and Pitres.

A summary as to the relations of the case to cerebral localisation follows its history.

J. H., Pte. 57th Regiment; 4 $\frac{1}{2}$ years' service; age 22; admitted Sep. 25, 1875. This, the first attack of mental disease had commenced insidiously, and therefore the exact date of its appearance could not be assigned, but the patient

* Read before the Medico-Psychological Association at Bethlem Hospital, Dec. 1, 1880.

had been under treatment for it in Ceylon from Feb., 1874 to Apr., 1875, and then for several months whilst on the voyage home, and at Netley. The family history was not obtainable, but before entering the army the patient incurred a severe fracture of the skull by a fall from horseback. His character in the army was good, his education moderate. There was no record of syphilis. Since Nov., 1873 he had been known to be subject to nocturnal epileptiform seizures. These seizures became more frequent, as many as five often occurring in the course of the night, and on one occasion he became very violent after a seizure, and assaulted his orderly. The proneness to violence after the fits continued; and mental confusion, incoherence, and dementia appeared and waxed greater. No suicidal tendency was observed. Latterly incomplete right hemiplegia supervened.

His height was 5ft. 4½ in., weight, 131lbs. Without describing the physical condition in detail, on admission, it may be said that a marked cicatrix showed at the left temporal region, and in the left parietal a semilunar, reddish cicatrix, with marked irregularity of the bone. The left ear was misshapen from old hæmatoma. The tongue was protruded without tremor or twitch, and without decided deviation from the median plane. Speech was clear. The equal pupils were not quite normally susceptible to light. Slight lower facial paresis could be detected on the right side. The grasping power of the right hand was impaired, and in walking the right toes dragged, and the right leg was swung round somewhat at each step. Of the two, the lower limb was the one more paralysed. Sensibility was diminished in the right limbs, and their temperature was lower than that of the left, being in the right axilla 96·8°, as compared with 97·5° in the left. No other sensory failure was noted. Pulse 60; respiration 11; heart's action and circulation rather weak.

Dementia was well marked, but in some respects, and probably in relation with the convulsions, the obscuration of mind was more or less fitful and shifting. Thus, at times he appeared to be utterly dull, stupid, and void of comprehension, inattentive, and incapable of expressing himself; at others, each question only elicited one and the same irrelevant reply; at others, he made, to simple questions, replies which were relevant, although often incorrect by reason of amnesia. On his usually vacant and expressionless countenance a silly smile at times was seen. (KI, KBr. Tonics.)

As to the further clinical history of the case, it need only

be added that the epileptiform attacks still usually occurred at night, and therefore escaped my observation. Sudden quasi-syncopal seizures, however, occurred by day. At times the patient made *bizarre* movements; now lifting the head and gazing upwards; now slipping sideways, inertly on his chair; again rising, staggering, stumbling and falling towards the right side; and anon performing a turning movement, around and around, ending by his sinking in a heap to the ground. On occasions at night he was extremely restless, and even noisy, uttering incoherent ejaculations and unintelligible noises. By day he was often drowsy, heavy and languid, and at other times utterly dazed and confused. Latterly, the dextral hemiplegia became more pronounced, and the gait more insecure and tottering. The right toes scraped the floor, and the foot was planted heavily and clumsily, but the right hand could still be raised to the head. The mouth was slightly drawn to the left, and in protrusion the tongue deviated slightly to the right.

Finally, there was some bronchitis and congestion of the lungs, at first with vomiting, ending in slight pulmonary collapse at the front of the right lung, and in slight inflammation about its base posteriorly. The pulse ruled high (114-120); so did the temperature ($103\cdot5^{\circ}$, $103\cdot6^{\circ}$, $103\cdot2^{\circ}$, $103\cdot2^{\circ}$); the respiration was deep (17 to 30). There were cerebral oppression, drowsiness and somnolence. The conjunctivæ were injected; the pupils rather small, sluggish, and equal. The palsy of the right arm increased. And now a half-rhyming, singing delirium appeared, single words or unmeaning phrases being monotonously repeated or chanted. Intestinal tympanites supervened, and, after four days' illness, death on Nov. 5th, 1875.

Passing now to the Necropsy, the calvaria was extremely unsymmetrical. The line of ancient fracture was marked on the external surface of the skull by an irregular ridge on the left parietal bone. Nearly 4in. in length, it began below and in front at the temporal ridge, and passed upwards and backwards to the sagittal suture, where it formed a bold elevation beside the parietal foramen. Along the middle of this rough ridge ran an irregular depression, grooving the straggling heaps of bone callus. Exactly corresponding with this groove on the external ridge there was, on the *internal* surface of the cranium, an angular depressed furrow in the bone $3\frac{1}{4}$ in. in length, and in front of this furrow were four bosses of spongy callus. The upper end of the fracture

adjoined the sagittal suture at a point 3in. from the anterior extremity of the suture and $1\frac{3}{4}$ in. from its posterior. The lower end of this internal line of old fracture was $2\frac{3}{8}$ in. from the front end of the sagittal suture, and $\frac{3}{4}$ in. from the coronal suture. To the furrow of fracture, and to the exostoses in front of it, were adhesions of the dura mater, and on removal of the calvaria the dura mater was left in a ragged condition and full of gaps to the width of $\frac{1}{2}$ in. in parts. Along this line, too, had portions of the pia mater and arachnoid both adhered to the dura mater, and separated with it, thus leaving areas of the grey brain-cortex denuded. Facing the line of cranial fracture, was a belt of cortical change which had ended in wasting and sinking of the grey matter, to which also the intervening girdle of locally thickened, tough and fibrous meninges had formed adhesions. There was some induration of the white cerebral substance immediately underlying the belt of atrophied grey matter. This belt of surface lesion started immediately at the great longitudinal fissure, 5in. from the tip of the frontal lobe, 3in. from the tip of the occipital, and trending downwards and forwards over the left hemisphere, ceased at a point $2\frac{3}{8}$ in. from the tip of the frontal, $5\frac{3}{8}$ in. from the tip of the occipital, and $2\frac{1}{4}$ in., by the shortest cut, from the great longitudinal fissure. In this course it affected the anterior and median portion of the postero-parietal lobule, the upper portion of the ascending parietal convolution, a considerable portion of the middle third of the ascending frontal, the posterior part of the second frontal, and it terminated at the inferior frontal sulcus.

Scattered adhesions also existed between the left frontal lobe and the dura mater lining the left anterior fossa of the base of the skull, and between the dura mater of the right and the anterior surface of the right frontal lobe for $\frac{3}{4}$ in. adjoining the great longitudinal fissure. Connected with these adhesions were marked cortical changes. For, on the orbital surface of the left frontal lobe, was an area of wasting of the cortex of the gyri, irregular in shape and with sinuous margins, occupying the anterior three-fourths of the orbital surface, destroying nearly all the cortex of the second, and of the front half of the first, and invading that of the third orbital convolution. Over this area the inner meninges were thick and tough, and adhered to the greyish and yellowish, gelatinous-looking, softened relics of the cortex. The cortical destruction also affected part of the adjoining surface

of the gyrus marginalis near its tip, and was limited above by the calloso-marginal fissure. A less degree of a like change obtained in a smaller area of the right frontal surface, especially the middle portions of the gyrus rectus and second orbital convolution. A minor degree of a similar condition affected a portion, the size of a shilling-piece, of the inferior surface of the tip of the left temporo-sphenoidal lobe, invading parts of the third temporo-sphenoidal gyrus, "uncus," and lobulus fusiformis, and here, in the anterior part of the left middle fossa of the skull-base, were some brain-adhesions to the dura mater, but without meningeal thickening.

There was also a patch of adhesion, but here of the soft meninges only, over an area the size of a sixpenny bit, on the left first frontal gyrus, one inch from its termination posteriorly.

Independently of the local inflammatory thickening already mentioned, there were some general thickening and increased consistence of the meninges on both sides, and the velum interposition participated in these changes.

The cerebral grey cortex generally was rather thin, pale, and indistinctly stratified, especially in the frontal and parietal regions, and more so in the left than in the right hemisphere. There were no marked changes in the insula. On both sides the white brain-substance was rather pale, and, except at the parts already specified, both it and the grey were of ordinary consistence. The grey commissure was unduly fragile, the fornix slightly softened. The left opto-striate bodies were less plump than the right, but no very marked difference between them or change, was observed on section. Basal arteries healthy; serosity moderate. The right hemisphere weighed $20\frac{7}{8}$ ozs.; the left $17\frac{1}{2}\frac{5}{6}$ ozs., or almost 3 ozs. less than the right; the cerebellum $4\frac{1}{2}$ ozs.; the pons and medulla oblongata $\frac{7}{8}$ oz.

It is unnecessary to describe the thoracic and abdominal viscera, most of which were fairly healthy, except for slight vegetations on the mitral and tricuspid valves, pulmonary congestion at the bases, and a patch of pulmonary collapse at the lower border of right upper lobe.

The following were the microscopical appearances:—

At the belt of left parieto-frontal lesion, and in the white substance beneath—much connective tissue overgrowth; proliferation of nuclei; grey non-staining rounded nucleated bodies; bodies resembling amyloid corpuscles. In the cortex

adjoining this belt—proliferation of nuclei, and some nerve-cell and vascular changes as described below.

At the lesion of left orbital surface—granule masses; meshes of wavy reticulate tissue, entangling bodies like amyloid bodies. The grey matter adjoining this change was also invaded by the amyloid-like bodies and increase of connective tissue, and its nerve-cells were obscured by molecular deposit, which also affected some vascular walls.

Tip of left frontal lobe—rather granular nerve-cells; scattered hæmatoidin masses, and the same fringing the minute vessels; interspersed fine reticular tissue; and round or oval cells $\frac{1}{1000}$ to $\frac{1}{1000}$ in. in diameter. Left third frontal g.—much the same, some of its nerve-cells shrunken. Somewhat similar neuroglial and cellular changes and formations, moderate in degree, as also granular deposits in the vascular walls, were observed in the left ascending parietal; and, to a less degree, in the right third frontal, and right ascending parietal.

In conclusion, I may summarise by saying that, in this case there were, *pathologically*:—

Brain injury, and resulting local inflammation.

Permanent local destruction of parts associated with local irritative lesions.

Secondary wide-spread morbid processes, nutritive failure, and degenerative changes, all mainly of the left cerebral hemisphere. The lesions of the orbital cortex had followed bruising and pulpification due to counterstroke.

And *clinically*:—

Epileptiform seizures.

Mental disorder and defect assuming the character of incoherence and dementia.

Dextral paralysis and impairment of tactile sensibility.

To explain these symptoms by the lesions, we have, as a factor, the chief injury, at once destructive and irritative, occupying a tract coursing through the very heart of the cortical motor zone.

(a). This sufficiently accounts for the epileptiform seizures.

(b). To this, in part, also may be assigned the right hemiplegia; to post-epileptic exhaustion of this motor cortex, and of the motor centres connected therewith along the line of convulsive incitation, may be referred the evanescent post-epileptic increase of paralysis; and its permanent increase to the general left cerebral atrophy. That the arm suffered less, relatively to the leg, was a point as to which the teach-

ing of the case was not in harmony with the localisation schemes of those who place important arm centres in the middle of the ascending frontal convolution.

(c). To the extensive degeneration of the left cerebral hemisphere, and to the more enfeebled circulation in, and lower temperature of the right limbs, may be attributed their defective sensibility.

(d). The occasional turning-movements were probably due to irritation reflected from the cortex to parts at the base.

(e). As for the mental symptoms, there were more or less loss and disorder of motor ideation by the lesion of the left cortical motor zone; some failure of power of attention, of mental concentration and ideational control by destruction of part of the frontal cortex; and general degradation of the mental powers by the secondary extensive nutritive changes, more particularly affecting the left hemisphere.

The Conditions Necessary for the Successful Training of the Imbecile. By DAVID BRODIE, M.D., Liberton, Edinburgh.

The education of the imbecile is an enterprise the inception of which dates from a very recent period. The generation has not yet passed away, which frankly insinuated that the idea of teaching the idiot could only enter the brain of one somewhat closely related to the class. It is now everywhere recognised as an important and imperative duty which cannot be neglected without shame and loss; yet for efficient practical effort, it is still but the day of small things.

The inquiry as to the extent to which idiocy prevails, the investigation of the causes which operate in its production and also the very varied conditions under which it is presented, we leave aside, while we invite attention to the conditions under which the improvement of imbeciles can be most efficiently prosecuted.

The relation legally established between imbecility and lunacy has supplied a most embarrassing complication in dealing with educable imbeciles. There is no reason in the world why juvenile imbeciles, in all their varied phases, should be classed with lunatics, or in any way subjected to the regulations which are in force in relation to that section of society.

Imbeciles demand pre-eminently an educational effort to aid them in their sad deprivation. It must begin and end as such. It is from first to last a process of leading out and leading on, with the peculiarity that its subjects must also lean somewhat heavily on the strong arm and draw with equal force on the sympathies of the educator. It may have been well for the idiot when there were no educational statutes in existence, that the State should throw its protecting arm over this helpless class, but now that education has been provided for all, we plead that those most urgently in want of educational assistance should be transferred from the Lunacy authorities, who can do literally nothing for them, to the School Boards of the country, who have full power to command all necessary resources for the proper accomplishment of the work, a work which is essentially germane to the grand object for which these boards were called into existence.

The advantages of thus recognizing their true position and claims on society are demonstrated in the United States, where institutions for the education and training of imbeciles, created and endowed by the several State legislatures, constitute the complement of the grandest educational machinery which the world has ever seen. Education is there recognised as the birthright of every child, and is not withheld from the weakest and most helpless. Our friends in the United States have listened to good purpose to the speechless eloquence of neglected, degraded, and perverted imbeciles, and have made most liberal provision for their education. Twelve of the States representing a population of above 23,000,000, have made public provision for the education of the idiotic and feeble-minded, and 2,330 pupils of that class are under educational and industrial training. These institutions are the result of the intelligent appreciation of the benefits secured by their foundation, and the State legislatures have never gone back in their approval and support of this work. The public sympathy with the object is such that, but for the heavy taxation consequent on the war, it is believed that by this time almost every State of the Union would have had its institution for the education of imbeciles. The pupils are selected by competent parties under State authority, and strictly in view of their capacity for education. We have looked upon the children gathered together under such conditions, and remarked to the friend in charge

of the Institution that "they had certainly a higher type of idiocy to deal with than we could bring together in our institutions on this side." We have seen, too, the ample educational staff—ladies, handsome, energetic, thoroughly finished and lovingly devoted to their arduous duties, and gentlemen whose abilities would adorn any educational institution. We have seen nothing among ourselves to compare with the efficient agency in operation, or with the superior material on which the agents are engaged; and the results of the effort are commensurately encouraging and satisfactory. The fact is recognised as demonstrated that without training and education, idiots are an unproductive class; with it, their industrial capacity is immensely increased. Dr. H. B. Wilbur maintains that this may certainly be said of 75 per cent. of their number, while the remaining 25 per cent. are so severe a tax on the productive energies of their families, that it is found to be a wise economy that they should be properly cared for elsewhere than in their own homes. In the United States an increasing liberality is evinced in providing for the wants of these weak ones, and new institutions are being established on their behalf; while among ourselves we look almost in vain for any public sympathy with the subject, and the effort is carried on under conditions and in circumstances most discouraging and unsatisfactory. Our hope for the future is in the restoration of these helpless ones to their proper and natural place under the educational arrangements of the country. The expense would be but a bagatelle in the national expenditure, and not only would society discharge its duty to its most dependent members, but thousands of the most hopeful cases, which will never come under intelligent guidance if they are to be dealt with as lunatics, would be brought under timely training, and fitted for usefulness and self-reliance. Every schoolmaster can report his experience of a certain number of peculiar, eccentric, or backward children, who have baffled his best endeavours to enable them to keep pace in the ranks with their fellows, and of whom some ultimately passed into the criminal or pauper class, to the permanent loss and disgrace of society. The fact that a deplorable number of criminals are supplied by the imbecile portion of the population, receives a striking illustration in the Third Report of Her Majesty's Commissioners for Prisons, which has just been published, from which it appears that in the twelve months

preceding the last return, no fewer than 541 imbecile or weak-minded prisoners were received, and that there were then in confinement 125 of the deplorable class in question ; and in the reports of the Governors of Gaols, cases of imbecility and weak-mindedness not unfrequently appear among those who are classed as habitual criminals.* That we are not behind in this matter in Scotland appears from the record left by the late Dr. Malcolm, of Perth, surgeon to the general prison there, that "in his opinion, after 18 years' intimate acquaintance with criminals, 9 in 10 are to be regarded as of inferior intellect." Dr. Malcolm's successor in the General Prison, Mr. J. B. Thomson, was equally explicit in the expression of his opinion "that as a class the intellects of prisoners are much below the average, and that a large proportion are congenitally of imbecile mind."

Children of the low organization and imperfectly developed mental powers which characterize so many of the criminal class, are a drag and a hindrance of a serious kind to the operations of the ordinary school, while the same children if subjected to the system of individualization which is the distinguishing principle in the education of the imbecile, would supply "the higher type of idiocy," and would not only be accepted as most encouraging material by the educator, but would prove a valuable stimulus to the weaker members of the abnormal fraternity with which they would be associated ; and further, society would be spared the humiliating spectacle of the majesty of British law, and all the venerable paraphernalia of punitive discipline, solitude and silence, the cell and the manacle, the bolt and the bar, and sometimes the gallows, put in array against a multitude utterly unable to comprehend or profit by the treatment to which they are submitted. Results, we do not hesitate to say, would thus be secured, which would convince all gainsayers as to the wisdom and true economy of liberal expenditure in the early life of these children, so as to direct their energies into safe and useful channels.

Regarded, then, from the educational point of view, the question is to be considered how the education of these abnormal youths is to be most efficiently accomplished. Already grave doubts as to the wisdom and efficiency of the present mode of procedure have been put on record by high authorities. Unfortunately the friends of the imbecile have

* "British Medical Journal," Nov. 13, p. 801.

regarded it as an essential preliminary to any systematic plan of treatment that an asylum should be developed. This is a natural outcome of the unfortunate association of the imbecile with lunacy and its arrangements. These asylums have been developed mainly on the lines accepted as suitable for the care and custody of lunatics; some of them have attained monstrous dimensions, all of them are too large to allow of due individualization, the absence of which will bring to naught the best intentioned efforts for the improvement of their inmates.

Some remarkable statements as to the doubtful value of existing institutions for the treatment of imbeciles, have emanated from the Scottish Lunacy Board. In the Report for 1877, several cases are referred to in illustration of the superiority of home guardianship and training of imbeciles over that supplied by Institutions. Of one youth it is stated (p. 119)—“In this case it is evident that an improvement has taken place under private and domestic care, which would not have taken place in an asylum, or among other boys of his age in any public institution.”

Another case is referred to, that of a girl who had spent her full period of five years in an institution for imbeciles, and was discharged at the end of that time as “relieved.” She was then admitted to a poorhouse, described as “completely demented, not amenable to curative treatment, and deaf and dumb.” She continued there for six months without any improvement, and was transferred in 1871, at 16 years of age, to the care of a “crofter and his wife.” The Commissioner describes the patient on his first visit as “an idiot of low type, inclined to be cleanly and good-tempered, but quite unable to do any useful work.” In 1875 the same Commissioner reports a considerable improvement in her general condition. He says, “She now carries in water, scrubs the floor, washes the dishes, gathers potatoes in the garden, and helps generally in all the simple acts of housewifery. She not only does such things carefully, but becomes ill-pleased when she sees anything done which she regards as careless or wasteful. She has gained so much in intelligence, that her supposed deafness and blindness (she had been said to have very imperfect sight), are found to have been in a great degree due to stupidity.” She astonished the Commissioner by saying, with quite intelligible articulation, “Now I’m going to dry the dishes.” On this history the Commissioner remarks, “I believe that in most cases, if

efficient private guardianship can be obtained, it is in every way most desirable ;” and, further, “ I incline to believe that efforts in the direction of higher culture are generally fruitless, and sometimes even hurtful. I, therefore, strongly recommend that such patients should, where suitable guardians can be got, be placed under private care, as affording the best opportunity for the development of such faculties as they possess, and the attainment of such happiness as they can feel I submit these observations because it is not sufficiently recognised by some of those interested in the improvement of idiots how much may, in favourable circumstances, be done for them without removing them from their natural surroundings.”

It is gratifying to find, on the part of our Commissioners in Lunacy, such a keen appreciation of the necessity of providing and sustaining perfect individualization, for this certainly is the one point of distinction between public and private training, and it is, we conceive, from the knowledge of the Commissioners, that this cannot be secured in the institutions for imbeciles as they now exist, whatever other defects, in their practical working, they may be cognisant of, that the very decided views, which we have quoted, on the superiority of home training over that of the institution, are put on record, and certainly these views cannot be too widely known, if it be true that institutions for imbeciles fail to accomplish the purpose for which they were established. With Idiot Asylums, having a population of 700, 400, 300, and perhaps of a lower number it certainly requires no argument to prove that individualization is an absolute impossibility, and that consequently their inmates must incur serious deprivations. Notwithstanding all their cost in structure and agency, it would seem, if the views of our Lunacy Board are well founded, that we are driven to the unwelcome conclusion that the ultimate results to their pupils may be of less value than those which may be secured by “ a crofter and his wife,” aided by the homely activities of their “ ain fireside,” and that these helpless ones, who are brought together with so much anxious effort and outlay of money, may be found to have come together not for the better, but for the worse.

I hope to be able to show that this sad disappointment may certainly be avoided if imbeciles are treated in groups sufficiently small to enable due attention to be given to the special defects and requirements of each individual case.

From my own personal experience, I could adduce numerous cases where the best domestic care and parental training failed to make the child even tolerable at home, and in which removal from their "natural surroundings" and subjection to suitable training, secured substantial and enduring benefits—good results were accomplished which parents most gratefully acknowledged. Indeed, it has been with me a principle of action from my first connection with this work never to advise the removal of a child from home until the influences available there have been proved to be unequal to its requirements.

I venture to relate a most interesting illustration of the advantages secured by institution training, which has been reported to me. "A young imbecile, in very affluent circumstances, was the only surviving child of his parents, who, while anxious to secure all possible benefits for him, yet shrank from separation, and he was kept at home. He was left an orphan about 18 years of age, and he passed under the care of a most intelligent lady, who was strongly convinced that he would profit by the appliances in operation for such cases in public institutions. She was opposed in her wishes by some of the trustees of her ward, who had perhaps seen the report of our Lunacy Commissioners, but she persevered in her purpose, and at last was able to take him for a short visit to the Royal Albert Asylum at Lancaster. This was only for a few weeks, and attention was chiefly directed to his gymnastic training, in which he took much interest. His guardian reports the most gratifying results, especially in a marked increase in his intelligence, and a greatly extended interest in things in general.

The first practical question is to determine what number of idiots or imbeciles may be studied and treated, *i.e.*, educated and developed to the full extent of their capacity in one group, under a single head, aided by a staff of assistants. On this point, a more extended experience than is yet available, is required before any very positive rule can be laid down.

The mistake has, without doubt, already been perpetrated of bringing too large a number of imbeciles together under one roof, more by far than any one mind, with average human capacities, can possibly comprehend. This must be avoided, for it is a school, and above all a home—not an asylum or place of refuge, which is at present under consideration, and the essential features of the home and school, above all things, must not be suppressed.

In determining this question, the appeal must be made, not to the superintendents of insane asylums, but to the educators of normal youth.

Superintendents of asylums have come in these last days to glory in the magnitude of their charge, and in the quiet and order of a population of 1,200, 1,500, or, it may be, 2,000 insane persons under one management, and they are heroic enough to shrink from no amplification of their sphere of influence, little recking the crushed hopes and the suppressed sensibilities and activities which may be buried under the attractive stillness of asylum life.

We wish this had been the place, which we know it is not, to refer in detail to the facts and views recorded in the last Report of the Scotch Lunacy Board, on the dangers and disadvantages of the best asylum arrangements, as these operate on the insane. Not less than the young imbeciles, do these unfortunate persons suffer by being herded together in numbers beyond the comprehension of those in charge of them; and this report shows most conclusively that they similarly benefit, in a most remarkable degree, by the individualization which is secured by their wider dispersion in separate houses, and by being allowed to share in the activities of domestic life. The record, as it bears on our present inquiry, is too important to be allowed to pass unnoticed, unwelcome as the facts and inferences may be to those who see only perfection in prevalent asylum arrangements.*

Our appeal, therefore, is to educators of youth, who are too closely in contact with the subjects on whom they are engaged to be tempted by any meretricious glory which may attach to a large charge, and we believe that we shall secure their approval when we insist on a great reduction of numbers as essential to effectual educational action among imbeciles.

It must not be overlooked that it is strictly the class of imbeciles who are at least presumably educable which is to be brought under home and school influence. The proved uneducable class, unfortunately sufficiently numerous, must be otherwise provided for.

The object to be aimed at is to secure a mutual adaptation between the staff of educators and the company to be educated. There must be on the part of the pupils such a

* *Vide* Report for 1880, p. 53.

variety of condition as will give full scope to the energies of the educators; as M. Seguin has said, there must be "an efficient body of incapacities"—such a balance between the guiding head and the body to be guided, as the fitness of things determines.

A director in chief, who must be immediately in living contact with all the varied interests, personal and domestic, and more especially with the educational processes operating on his charge, aided, say, by three assistants, would thus have his best energies, I believe, fully occupied with about fifty pupils. My convictions on this point are the result of the experience of a quarter of a century spent in the training of imbeciles in a strictly domestic atmosphere. The actual number, however, is not to be settled by argument, but by extended experience, and I shall be the first to welcome a demonstration of the efficient control and effective education of a larger number under one management than that which has been indicated; but I have no doubt whatever of the safety of dealing with that number, nor of the danger of being in haste to attempt a greater. One advantage of some importance attends the limitation of the number of pupils to fifty, for I believe that the co-operation of School Boards within each County in Scotland would be secured, if it could be shown that this number of educable cases was to be found within its borders, as we are assured in most cases it would be, and if School Boards realised the fact, as is done by the educational authorities in the United States, that these children have a claim under the statutes of the realm for all the educational aid which they can profit by.

It is interesting to find in the last report of the Morning-side Asylum that Dr. Clouston, looking at the subject from an entirely different point of view, expresses his belief that "institutions for the training of imbecile children will probably have to be provided in the future for each district of the country." There will thus be supplied, in the augmentation of the number of institutions, and the diminution in the number of inmates, the true solution of the difficulty, and we believe that our Commissioners in Lunacy would at once abate their objections to the institutional treatment of imbeciles, if the numbers were thus limited. Such an institution would be, in fact, a true home, but only of somewhat larger growth than the average, and under better, because specially trained and experienced, direction.

The location and construction of buildings suitable for the

education of the weak-minded is a matter of importance. The institution ought to be in the country, but near to a town, and easily accessible at all seasons, so as to allow full and frequent intercourse with the outer world, to carry on the education of life. The situation must secure perfect hygienic conditions, abundance of pure water, equal to all possible demands for bath, lavatory and water closet requirements, perfect drainage, and liberal space for playground, walking exercise, and garden or farm operations.

Within the buildings there must be ample provision for direct sunlight, and sufficient security for warmth and free ventilation, and most ample space for both scholastic and industrial training, the variety and extent of which, in the form of schoolroom and workshop accommodation, must greatly exceed what is required for ordinary youth. The rooms adapted for gymnastic training and drill exercises must present a most prominent feature in the arrangements. Rooms for play and recreation in unfavourable weather are also necessary. Infirmary accommodation, also, for proper isolation and care during sickness, must be provided. Dormitories and dining-rooms of various sizes, to meet the special requirements of the pupils and attendants, nurses, teachers and director and their families. A hall large enough to accommodate the whole household, when assembled for various objects, is indispensable to the perfect institution. All the appointments should be as home-like as possible, attractive and roomy, without extravagance.

To draw out the powers of the imbecile, the educator is compelled to begin at a much lower point than is necessary in the case of the ordinary child. The normal child, from the first few weeks of its existence, responds to surrounding influences, and his education progresses day by day as he grows. He sees, hears, feels; all his senses bring him into intelligent relation to the outer world, and he grows in knowledge as he grows in years. It is entirely otherwise with the imbecile. Having eyes, he sees not; having ears, he hears not; neither does he understand. His sensorial endowments are dormant; so also his intellectual and moral nature, and if they are ever to be roused, it must be by the patient and well-planned efforts of others.

The education of the physical nature must be first taken in hand, and all through the bodily system must be kept under the stimulus of healthy direction; all hindering causes, such as improper diet, &c., must be eliminated, and every

assistance must be given to the development of bodily health. Bathing, regular daily exercise, truly nutritious food, suitable hours of rest, regular habits, are all means of culture. The scholars have indeed to be taught to see, to hear, to taste, to touch, to smell, to speak, to walk, and grasp and carry objects with the hand. Lessons in colour, number, form, size and weight; lessons in sound; speaking lessons; walking lessons—all come in their order. Ladders and poles, dumb-bells, bars, and all other gymnastic appliances—every device to excite attention and to secure continuous application must be kept in active operation. Musical aids to gymnastic exercises must be employed, and in other ways music contributes to mental culture, while not a few will acquire proficiency in both instrumental and vocal music. Lessons in speech and improved articulation occupy a prominent place in the elementary stages of culture, and the various perceptive faculties will supply scope for special exercises in “object lessons,” for which materials must be largely accumulated. All the developments of the older infant school and the newer Kindergarten system are laid under contribution for the benefit of these *enfants arriérés*.

Lessons in reading, writing, drawing, arithmetic, geography, singing, are given, but all adapted by specific devices to the defective comprehension of the pupils, and the patience of the teacher is put fully to the test. A certain proportion of the pupils would, undoubtedly, be enabled to pass to the higher grades of school culture in the ordinary schools, and, not unfrequently, would be found to be favourably distinguished by their acquirements.

These are the lessons of the schoolroom; but more important, perhaps, even than these are the lessons given elsewhere, especially in the gymnasium, where much good work is done, often under the guise of play, attentive observation, prompt obedience, combined action, muscular control, muscular effort, tests of strength, are all inculcated, and the effect on the mental development of the imbecile is marvellous. Then there are lessons of the playground, and the lessons by the way, an ancient sphere of youthful culture. The lessons of the dining-room are not the least important events of the day in the routine of the institution, and in view of the great end of all its discipline and culture, the restoration of the pupils to their own homes, the true educator of the imbecile will not fail to keep and use his place of influence as father of the family at the head of the table; for the incul-

cation of good manners, and securing the observance of social proprieties, nothing equals the lessons of the dinner table. I can say, from personal experience, that the occasional attendant discomforts of this arrangement are of small account to those who truly appreciate the end to be secured. Industrial training keeps pace with and aids in the consolidation of the scholastic exercises. The girls are taught all the varied domestic duties pertaining to a household. The boys take their share of domestic work, and are employed in gardening and farm work, tailoring, making of shoes, mats and brushes, carpentry and woodcutting. Under this light they must appear not merely as pupils in a school, but as apprentices to a trade, for such training is necessary before they can be expected to occupy a self-supporting position in the outside world. This, of course, necessitates prolonged residence in the institution.

The culture of the moral nature of these weak ones is less a process for the school than for the home atmosphere, and the occasions for its exercise will not be lightly esteemed, for the reward is great—immeasurable. The spiritual experiences of many imbeciles give undoubted evidence of their realisation of unseen things, and the light thus let in on the otherwise darkened soul will not pass unrequited by Him who said, “Inasmuch as ye have done it unto one of the least of these My brethren, ye have done it unto Me.”

The hurried sketch which we have given of the work to be done, and the accommodation required for doing it, we trust will aid, in some measure, in giving a conception of what ought to be provided, if the imbecile are to be truly educated and restored to social existence. The task of making bricks without straw was an easy one compared with the endeavour to lighten up and brighten the obscure mind, and rouse the impaired powers of the imbecile, without the special aids which their condition demands; and unless these are liberally supplied the effort can only end in grievous disappointment and still greater discredit than even now attaches to institutional training.

Inadequate supply of intelligent assistants, of course, is fatal to all good results. In one of our existing institutions it appears that “the storekeeper was also teacher of reading, writing, arithmetic and such subjects, as well as of shoe-making, brush-making, and mat-making. He had often to leave the school to take in provisions, with no one to supply his place.” This statement of the duties of the storekeeper

is given by the superintendent, in answer to the suggestion of the directors that the storekeeper should also be employed as his clerk.

We have said nothing of the qualifications which the educators must possess in undertaking this peculiarly arduous work, and a word must suffice. The best appointed institution and the best devised scheme of operations will count for nothing without the animating spirit—the true educator who is prepared and determined to help the most helpless of his fellows. Love for the work must tower over all other considerations. The spirit of Him who came to seek and to save that which was lost must be the motor power, and with this there is scope and need for the highest educational aptitudes and energies. The history of the effort shows that it has been successful only in the hands of devoted men drawn to the work from the love of it, and prepared to endure and endeavour for its sake.

We wish to take common ground with the educators of the country. If the School Boards will only allow us to take the lowest place along with our lowly charge, we may, by-and-bye, be able to render some return for the favour conceded. One of the most interesting features of the work of education among imbeciles is that it throws important light on the systems of education employed among ordinary youth, which, it is admitted, have not yet reached perfection. The educator of the imbecile can do nothing if he does not wisely observe the physiological conditions under which the human mind can be operated on and moved. He must reach the mind through the body; the body itself is indeed largely the subject of proper educational effort. The natural order in the development of the mental powers must be respected. The reflective powers must not be prematurely or too persistently stimulated, while full scope must be given to the exercise of the perceptive powers. Abstract subjects must be cautiously presented, for even here the higher culture may do harm. Mental strain must by all means be avoided, and the attempt to cram is soon seen to be a vain endeavour. Finally, youthful human nature whether in the normal or abnormal sphere must be studied, and its needs and capacities fairly appreciated, before it can be effectively educated.

On Hypertrophy of the Brain in Imbeciles. By FLETCHER BEACH, M.B., M.R.C.P., Medical Superintendent of the Darenth Asylum.*

Hypertrophy of the Brain is a comparatively rare disease, and has attracted little notice in England. Laennec first drew attention to its occurrence in children, and to its similarity to chronic hydrocephalus in many of its symptoms, and the likelihood of its being mistaken for it. The cause of the disease is obscure. Brunet defines it "as an increase in the weight of the organ due to a disorder of nutrition, leading to an alteration in the nervous substance." The process is not one of mere increased growth, but the nutrition of the organ is modified in character as well as increased in activity. According to Rokitsansky the augmented bulk is not produced by the development of new fibrils, or by the enlargement of those already existing, but by an increase in the intermediate granular matter, most probably due to an albuminoid infiltration of that structure. My own observations lead me also to the opinion that the disease, as seen in imbeciles, is due to an increase in what appears to be granular matter, for in some sections, which I have in my possession, this is seen. The change is accompanied by an increase in the number of the blood vessels, and the presence of a large number of leucocytes. Andral states that in two post-mortems made by himself, the white matter resembled the white of egg hardened by boiling. In one post-mortem only have I noticed any peculiarity in the white matter, and in that case I find I have recorded that it was of a "peculiar whiteness." The parts affected are chiefly the white matter of the two hemispheres, sometimes the corpus striatum and optic thalamus, rarely the pons and cerebellum. MM. d'Espine and Picot consider the affection to be a congenital one, and in this opinion I concur. They hold, however, that imbecility only results when hypertrophy of the brain is accompanied by sclerosis. My experience does not lead me to this opinion, for in none of the seven post-mortems which I have made was sclerosis present. Brunet, too, describes two cases of hypertrophy of the brain without sclerosis which he has seen in idiots. Both d'Espine and Picot and Brunet

* Read before the Medico-Psychological Association at Bethlem Hospital, December 1, 1880. The paper was illustrated by photographs and cranial outlines.

describe two forms of the disease ; in the one the hypertrophy is simple, in the other accompanied by sclerosis. The principal symptoms are headache, at times intensified, excitement followed by coma, blunting or arrest of development of the intelligence, difficulty in walking, and convulsions. The symptoms are said to be less marked in children than adults, because the brain is less compressed, the cranial cavity increasing in size as the brain enlarges. I proceed to relate particulars of some cases which have come under my observation.

CASE I. A. H., aged 15 years, was admitted into Clapton Asylum June 19th, 1875, and died April 20th, 1876. There was no history of neuroses or of hereditary disease in the family. His parents were of temperate habits, sound, physically and mentally, and were not connected by consanguinity. His mental deficiency is said to have been noticed after a series of convulsions with which he was seized while teething, at the age of nine months. They soon ceased, and he had none afterwards. There were two other children, one older and one younger than this one, whose mental condition was unaffected. A. H. on admission was a well-nourished boy, of dark complexion, with a large head, square in shape, and with well-marked frontal prominences. Circumference 23 inches, transverse diameter $12\frac{1}{2}$ inches, antero-posterior 13 inches. He was bright-looking, good-tempered, and willing to work. There was no loss of sensation or motion. No sign of rickets. Mental capacity fair for an imbecile. He could use many words, but his articulation was defective. He went to school in the Asylum, worked as a tailor, and assisted in household work. During the ten months that he was under training he made good progress in school and shop. He was an imbecile who, had he lived, would have made good progress. His general health was good, and until the illness, from which he died, he was only under treatment for minor ailments. About a week before his death he took to his bed, complaining of pain in his right shoulder and arm. Two days afterwards he was seized with a convulsive tremor, his limbs at the same time being rigid. From this he recovered, but four days afterwards I was called to him, and found him breathing stertorously with his tongue half protruded. His breathing, while I was with him, became laboured, and in about five minutes he died.

At the post-mortem, 32 hours after death, on removing the calvaria the cranium was found to be increased in size anteriorly and posteriorly, and there were well-marked frontal prominences. The dura mater was congested, and very adherent to the skull cap over the greater part of its surface. The sinuses were very full of blood. The brain weighed 62 ounces. On removing the dura mater the

subarachnoid fluid was seen to be increased in amount over the whole of the convex surface, and over a space $1\frac{1}{2}$ in. in length and nearly $\frac{1}{2}$ in. in breadth, close to the right of the longitudinal fissure, and corresponding in position with the posterior part of the frontal convolutions was a layer of pus. The membranes did not appear to be thickened. The vessels were all much congested, and the pia mater injected. The convolutions were simple. They bulged upwards, and the sulci correspondingly were not as well marked as usual. On slicing through the brain transversely the white matter was seen to be exceedingly increased in amount. The puncta vasculosa were well-marked. The lateral ventricles were dilated and contained a quantity, though not large in amount, of fluid. Ependyma thickened and presenting the so-called "ice plant" granulations. Brain substance firm. No sign of tubercle, tumour or sclerosis. The white matter on being subjected to microscopical examination was found to present a uniform granular appearance. There were a large number of leucocytes present, and a great increase in the number of vessels; from these the leucocytes had evidently escaped.

CASE II. A. C., aged 12 years, was admitted into the Clapton Asylum May 11th, 1876. His mother was hysterical, and had an epileptic fit when pregnant with her eldest child. The maternal grandmother died of apoplexy. On the father's side there was a history of phthisis. There was no history of consanguinity, and the parents were temperate in their habits. The mother had a fright when pregnant with A. C. and became unconscious. When two years old, while teething, he had a fit, and he has had them ever since. He was always dull and sleepy, and used to "bob" his head forward. His head was large when born, but the projections on the forehead have since come on. There are six other children who are quite healthy; three have died, but not of nervous diseases.

A. C. is a fairly grown boy, with a fresh colour, but vacant look. He is a low type imbecile. His head is large, square in shape, and there are well-marked frontal prominences. Circumference 22 inches, transverse diameter $12\frac{1}{2}$ inches (with calipers $4\frac{3}{4}$ inches), antero-posterior diameter $14\frac{1}{2}$ inches (with calipers $7\frac{1}{2}$ inches). Width of forehead between external angular processes of frontal bone 4 inches. He complains at times of headache, and points to the right temporo-parietal region when asked where the pain is situated. There is a very slight depression, the size of a sixpence, in the region of the anterior fontanelle. His head is prominent posteriorly. He walks slowly, and with a tottering movement, hanging his head slightly forwards, and with his left shoulder depressed. He cannot stand long at a time. Soon he begins to lean backwards and would fall if not

supported. He has little grasping power in his hands, which are cold and blue. Pulse 88, regular and weak. No sign of rickets. Sensation very deficient. He answers questions slowly, and there is a long pause between question and answer. He suffers much from epileptic fits, and, altogether, is gradually deteriorating. Lately he has been getting much weaker on his legs and falls about more. About every two months he loses his speech, and becomes very weak and helpless. This lasts for about 10 days, and then he slowly recovers.

CASE III. W. J. E., aged 14 years, was admitted September 4th, 1876, and died April 13th, 1877. There was a history of plithisis on the father and mother's side of the family, and of epilepsy, apoplexy, and insanity on the mother's side. The father and mother were first cousins. The case is a congenital one. The mother suffered very much from pain in the head when pregnant with the patient, and used to bang her head against the wall. The child had a fit after a fall on the head when he was twelve months old. He is said to have had "inflammation of the brain," and afterwards was convulsed at times. One brother of the patient died of bronchitis and convulsions, and another had a series of fits from which he recovered. The boy was fairly nourished, and presented no signs of rickets. His head was large, with well-marked frontal prominences—circumference $21\frac{1}{2}$ inches, transverse diameter 13 inches, antero-posterior 14 inches. He was dejected in appearance, subject to fits, and of low mental capacity. He made no progress in school. His general health was good until a week before his death, when he was taken ill with vomiting and diarrhæa, convulsions came on and he died exhausted. At the inspection the brain was found to weigh 52 ounces. It was congested. The anterior portions of the cerebrum quite filled up the cranium, which in the right frontal region was thinned and diaphanous. The ventricles contained some fluid, but a quantity had drained away when the brain was removed from the skull. There did not appear to be an increase of the white relatively to the grey matter, except in the central part, but it seemed to be a general hypertrophy of the whole brain.

CASE IV. A. H. S., aged 5 years, was admitted into the Clapton Asylum June 23rd, 1875. Parental history good. The mother ascribed his condition to a fright when pregnant with him. He had a large head when born, and never noticed things like other children. He was a fairly nourished boy, not epileptic, unable to speak, and of small mental capacity. No sign of rickets. He went to school in the Asylum, but made little progress. He suffered from diarrhæa a short time before his death, which occurred suddenly, preceded by unconsciousness, on September 22nd, 1875. At the autopsy the brain was seen to be congested, and the pia mater injected. The subarachnoid fluid was increased and slightly turbid. On slicing through the brain the white matter was found to be considerably increased in amount. The lateral ventricles were slightly dilated, and contained

fluid. A large quantity escaped on removing the brain, which weighed 49½ ounces.

CASE V. A. G. D., aged 8 years, was admitted July 14th, 1876, and died December 20th, 1876. The father was intemperate, and had separated from the mother. No history of nervous disease or of insanity in the family. The case was congenital, and said to be due to the mother flying into violent passions with the father during her pregnancy. The child had a "peculiar shaped" head from birth. He was a well-nourished child, with a large head, and had fair use of his limbs. No sign of rickets. He could say a few words, but usually motioned for what he wanted. Disposition passive. Mental capacity small. Not epileptic. He made little progress in school. About a week before his death he vomited, his face became flushed, and unconsciousness supervened. He remained in this state till death took place. When the post-mortem was made the brain was found to weigh 53 ounces. Convolutions simple. Large vessels congested, and pia mater injected. No disease of membranes. On slicing through the brain the white matter was found to be increased in amount, both relatively to the grey matter and absolutely. It was of a peculiar whiteness. Brain substance firm.

CASE VI. P. J., aged 10 years, admitted July 5th, 1875. No history obtainable. The patient was a well-nourished boy, tractable and well-behaved, not epileptic, able to speak, and of fair intelligence for an imbecile. His head was large, but no sign of rickets in the body could be detected. He made some progress in school, and was put to work as a shoemaker. His health was generally good, but bronchitis came on, of which he died, February 10th, 1876. On examining the brain the convolutions were found to be very simple, and the white matter in excess of the normal amount. No sign of congestion, and no excess of fluid. Weight of brain 55 ounces.

CASE VII. F. D., aged 11 years, admitted May 14th, 1875. The only information obtainable about him was from the certificate which accompanied his admission, and which stated that he was an "idiot from birth." He was a well-nourished boy, with coarse features, and repulsive appearance. Head large. No sign of rickets. He was a low type imbecile and had little intelligence. He went to school in the Asylum, but made absolutely no progress. About three days before he died diarrhœa came on, which weakened him considerably, and caused collapse and death on February 11th, 1876. His brain weighed 49 ounces. The calvaria was thicker than normal, especially anteriorly and posteriorly. Dura mater congested. Vessels loaded with blood. Convolutions in the parietal and temporo-sphenoidal regions simple. White matter of brain relatively much increased. No excess of fluid in ventricles, but in the outer wall of the right lateral ventricle was a cyst as large as a pea, containing clear fluid. No meningitis.

CASE VIII. P. D., aged 11 years, admitted December 9th, 1875, and

died March 14th, 1876. No history obtainable. He was well-nourished, with a large head, and well-marked frontal development. He was of a listless disposition, not epileptic, and though he could say a few words, his answers were quite irrational. No sign of rickets. His mental capacity was small, and though he went to school he made little progress. He was blind. Three days before death he was seized with convulsions, unconsciousness came on, and continued till his death. No convulsions had occurred previously. At the inspection the cranium was found to be thicker than normal. The dura mater was much congested and closely adherent to it, but easily detached from it was a thick false membrane which entirely covered the convex surface of the brain. On detaching the membrane purulent fluid escaped. The brain weighed $49\frac{1}{2}$ ounces. The whole convex surface was covered with a layer of pus, which extended over the under surface of the anterior and middle lobes of both hemispheres, shading off gradually posteriorly. On slicing through the brain transversely the white matter was seen to be increased in amount. The lateral ventricles were dilated and filled with fluid. The brain substance was softened and the vessels everywhere congested.

Andral states that there are two periods in this disease. In the first, the chronic stage, the symptoms are slight; in the second, unless the patient has been previously carried off by the intervention of some other disease, those characterising an acute affection appear, and the patient dies of convulsions, of symptoms indicative of compression of the brain or acute hydrocephalus. In the cases just related the patients died in convulsions in 3, in a comatose state in 2, while the remaining two were carried off by diarrhoea and bronchitis. The symptoms differ according as the cranium enlarges contemporaneously or not. If it does not enlarge, then hyperæmia added to hypertrophy is likely to lead to epilepsy. If, however, there is simultaneous development of cranium and brain, there may be few or no symptoms. The latter, no doubt was the condition in seven of the eight cases related; in the remaining one I think hypertrophy is gradually progressing, accompanied at times by hyperæmia. I suspect, too, some fluid will be found in the ventricles.

None of my cases presented signs of rickets. Dr. West states that hypertrophy of the brain is associated with that condition, but he goes on to say that, as the health improves, the rickety deformity of the limbs gradually disappears. As my cases, with two exceptions, were not admitted till after the age of 10 years, and were in good bodily health at the time, any rickety deformity which may at any time have been present would no doubt have disappeared. With reference to

the connection of hypertrophy of the brain with phthisis, I find that in two of the five cases in which I have been able to obtain particulars, there was a history of that disease in the family.

As to the weight of the brains removed. In order to estimate the extent of the hypertrophy so far as the circumstance of weight is concerned, it is necessary to ascertain the average weight of the *healthy* brain in individuals of the same age as those above mentioned. I know of no tables which give such particulars. A table giving the average weight of the brains of a number of persons in a robust state of health, who have died suddenly is much required, and would be of great importance. Failing this, I turned to Dr. Boyd's well-known tables, to some drawn up by Dr. Sims, and which appeared in the "Medico-Chirurgical Transactions" of 1835, to those of Dr. Crichton Browne and Mr. Crochley Clapham, and to the table drawn up by myself as a result of the examination of 100 brains of imbecile children. I selected from these tables the average weights of brains of individuals of the *same age* as those whose histories I have related, and compared them with the weights of the hypertrophical brains, and I found that the latter far exceeded the former. I append the results in the following table. The weights are given in ounces.

TABLE showing weight of hypertrophied brains and average weight of brains of individuals of the same age.

Initials of Name.	Age.	Weight of Hypertro- phied Brains.	Average weight of Brains, Dr. Sims' tables.	Average weight of Brains, Dr. Boyd's table.	Average weight of Brains, Dr. Beach's tables.
A. H. S.	5	49½	39	40.23	40½
A. G. D.	8	53	40	45.96	39
P. J.	10	55	40	45.96	40
F. D.	11	49	44	45.96	41
P. D.	11	49½	44	45.96	41
W. J. E.	14	52	44	45.96	41
A. H.	15	62	44	48.54	42

Dr. Sims' tables include males and females, while those of Dr. Boyd and myself are of males alone. These are more useful, as the cases of hypertrophy of the brain which I have related all occurred in males. Dr. Boyd's tables do not give the weights for each year, but during certain periods of years. Thus 40·23 is the average weight from 4 to 7 years, 45·96 the average weight from 7 to 14 years, and 48·54 the average weight from 14 to 20 years. During this last period according to Dr. Boyd, the highest average weight is obtained. The tables of Dr. Crichton Browne and of Mr. Crochley Clapham include all ages under 20. Those of Dr. Crichton Browne give 43 ounces, and those of Mr. Crochley Clapham 42 ounces, as the average weight of the brains of males during that period. It is unnecessary to go through the table in order to point out *seriatim* the great difference between the weight of the hypertrophied brains and the average weight of brains of persons of the same age, as a glance at it will render this evident. I would remark, however, that the weight of the brain of A. H., not only far exceeds that of the other hypertrophied brains, but greatly surpasses the average weight for his age.

The diagnosis of hypertrophy of the brain from chronic hydrocephalus chiefly rests on the history of the case and the form and size of the head. Dr. West remarks that "the symptoms of chronic hydrocephalus generally come on earlier and soon grow more serious than those of hypertrophy of the brain and the cerebral disturbance is throughout much more marked in cases of the former than in those of the latter kind." My distinctive diagnosis of hypertrophy of the brain from chronic hydrocephalus rests on the following points:—

In hypertrophy of the brain the head does not attain so large a size as in chronic hydrocephalus. The head of my first case measured 23 inches in circumference, that of the second 22 inches. I have three cases of chronic hydrocephalus now in the asylum, and their heads measure $23\frac{1}{2}$, $25\frac{1}{2}$, and $25\frac{3}{4}$ inches respectively.

In hydrocephalus the increase in the size of the head is most marked at the temples; in hypertrophy above the superciliary ridges.

In hypertrophy the head approaches the square in shape; in hydrocephalus it is rounded (see outlines). In hydrocephalus there is often an elasticity over the late closed fon-

tanelle; in hypertrophy there is none, and there is often a depression in that situation.

In hydrocephalus the distance between the eyes is increased from the fluid inserting itself between and distending the sutures formed by the frontal and ethmoid bones; in hypertrophy this is not the case.

As to the treatment, all that one can hope to do, is to keep the patient in as healthy a state as possible, and treat any active symptoms which may arise.

Illustrations of Heredity. By JAMES R. DUNLOP, M.B.,
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Glasgow.

During the autumn of last year I had occasion to visit the parish of Minto, in Roxburghshire, and on making enquiries as to the history of a certain patient, W. N., who was about to be sent to the asylum at Melrose, where I held the position of assistant medical officer, I was told that he was one of seven children who were imbecile, out of a family of eleven, and that the father of this family was popularly supposed to be not altogether right in mind. Thinking that if I followed up this case it might prove to be of some interest, I determined to investigate it.

The sources of my information are reliable, comprising Mr. Hamilton, the registrar and parish schoolmaster of Minto, the registrar of Cavers, Dr. Spence, of Denholm, Mr. Steele, Chamberlain to the Earl of Minto, and many respectable old people who have lived long in the neighbourhood, and whose memory concerning the events of their youth was still vivid. I have endeavoured to make the family history as complete as possible, but the difficulties of such a task are well known: friends frequently refuse information, and even deny the existence amongst themselves of diseases which are known to them; frequently also wishing to tell as much as they can, they mislead the enquirer by their erroneous opinions concerning many affections. I shall not comment on the few facts I have collected, but simply detail them with the aid of the accompanying diagram.

In all there appears to be a neurotic taint in four generations; more especially in the third. Concerning the first gene-

ration I have very meagre information, but sufficient to show the neurotic element in one, the progenitor of all the others marked in the diagram. This man lived long in the parish of Minto. Taught to be a tailor, he soon found himself unable to gain a livelihood by that occupation, and descended to the position of a common labourer. A few old people who remember him say he was "peculiar" in many ways, and they also remember their parents being accustomed to talk of him as "daft." The village children, taking notice of him as being peculiar, used to tease him, and it was no uncommon sight to see him chasing them. They were always afraid of him. He is said to have been temperate, and to have lived to old age. I cannot learn the cause of his death, nor can I gain any knowledge of his relations. His wife was an active woman, much respected by her neighbours, and was also temperate in her habits. By this marriage there were born four children—three males and one female. Their order of birth and their ages, with the exception of one, I have been unable to ascertain. Of these four, one male was sane, and presented nothing eccentric or peculiar in his manner or conversation; he was temperate, and, so far as I can learn, free from any manifestations of nervous disease. The female called Ann was said to be weakminded, the children about the place taking notice of her as being peculiar. She ran errands and did house work for the servants of a neighbouring county family. She had an illegitimate son in no way peculiar, and afterwards married the reputed father; she had, however, no other issue. Another male, who left the district for the north, and of whom I can find no further trace, was said to be weakminded, more so than his brother next mentioned. The fourth, John, a tailor by trade, like his father became a farm labourer. Mr. Steele says, "That although reputed sane, he was a somewhat strange-looking man, with a peculiarly shaped head, and that he was fond of quaint sayings and of telling wonderful stories." Mr. Hamilton, who also knew him, says "he was eccentric in all his ways, though capable of looking after his own affairs;" and one or two old people who have worked with him in the fields say he often said queer things and performed foolish antics, in order to cause the laughter of his fellow-workmen. From all I can learn I can come to no other opinion than that this man was decidedly weakminded. He married an active woman, shrewd for her station. She was eleven

years younger than her husband, and is said to have come of a good healthy stock, with no liability to neuroses or phthisis. Both husband and wife were temperate, lived an even life, and were not much troubled with hardship or privation. The husband died of "old age and debility," in 1848, aged 71 years, while his wife died in 1860 from "disease of the liver." They had eleven of a family, seven of whom were idiotic or imbecile. The first, Alexander, born 1807, died in 1876 from "peritonitis resulting in connection with a congenital hernia." Of the five imbeciles, who reached middle life or beyond it, he was the only one able to converse much, the other four being only able to use certain phrases from a very scanty vocabulary. The second, Helen, born in 1809, is still living, aged 71 years, has taken care of the others, and is a sensible woman for her position. She is unmarried, and so far as I am aware has had no children. She is said to have been temperate all her life, and never to have suffered from any nervous disorders. The third, Mary, born in 1811, and said to have been an imbecile, died in 1823, aged 12 years, the registrar being unable to give the cause of death. The fourth, William, born in 1812, now 68 years of age, an idiot, and presently an inmate of the Roxburgh District Asylum at Melrose, is unable to converse beyond giving monosyllabic answers to simple questions. The fifth, John, an idiot, born in 1814, died in 1871 from what his medical attendant certified as "marasmus." He and the last mentioned were said to be the least endowed of all. The sixth, Robert, an imbecile, born 1817, died in 1878 from "debility due to caries of the bones of the foot." He was hardly able to speak, but evinced great grief on the death of Alexander. The seventh, Jean, born in 1819, died in 1863 from "phthisis," and was said to be a sensible woman, with no noticeable eccentricity. She was temperate in her habits, and I cannot find that she ever suffered from any nervous disorder. She bore an illegitimate daughter, named Maggie, a sharp and intelligent girl, who on growing to womanhood died also of "phthisis." The eighth, Thomas, born in 1821, died in 1875 from "chronic bronchitis, with nervous exhaustion." This man was neither imbecile nor weakminded, though peculiar in look, manner, and talk. When at school, his master says, he was able to learn much as other boys, but was noted as being always somewhat of a recluse, and inclined to hypochondriasis.

For six years he lost the use of his voice, and went about using a slate for conversation. Gradually he became better, though for a year before his death he was unable to speak above a whisper. As he was not attended by Dr. Spence, but by a neighbouring clergyman, who is now dead, I have been unable to get further particulars regarding this aphonia. His wife, a sensible woman, though lately, Dr. Spence says, she has given way to religious excess, bore one child to him, a lad now aged 18, and said by Dr. Spence to be imbecile, though capable of a certain amount of education. Unfortunately I did not see this boy, as he was from home when I was making enquiries, and I have not since been in the district. He shows remarkable taste and ability in sewing book marks, cards, &c. One which I saw was exceedingly well done. His father also had talent for the same kind of work, though not so much as his son. The ninth, Ann, an imbecile, died in 1868 from "phthisis." This woman and Alexander of the imbeciles who reached adult life were the best endowed. She was long troubled with a very large goitre. The tenth, James, born in 1827, is still alive, and is a hard-working man, though peculiar in manner and conversation, very irritable in temper, and occasionally absent-minded and forgetful. He has always been a healthy man, temperate, and has never suffered from any nervous disease. He has had eight of a family, one of whom died in infancy from measles, without special nervous symptoms. The other seven, ranging from two to eighteen years, are said to be very healthy, and to have never suffered from any nervous affection. I saw four of them, and they appeared vigorous and well nourished, with minds fairly developed for their years. The eleventh, Charles, born in 1832, died when four years old, and is said by Mr. Hamilton to have been an imbecile. The four adult imbeciles were employed chiefly in breaking stones, though they have also trenched in the fields. Dr. W. A. F. Browne, I am told, was most anxious to have a photograph of the imbeciles taken, but unfortunately their friends would not allow this to be done. I am much indebted to Dr. Crombie, of Melrose, for assisting me in my enquiries regarding this most remarkable family.

Criminal Insane in Ceylon. By J. W. PLAXTON, M.R.C.S.,
Medical Superintendent of the Lunatic Asylum,
Colombo, and late Assistant Medical Officer, West
Riding Asylum.

“He that is strongly of any opinion must suppose (unless he be self-condemned) that his persuasion is built on good grounds, and that his assent is no greater than what the evidence of the truth he holds forces him to, and that they are arguments and not inclination or fancy that make him so positive in his tenets. Now, if after all his profession he cannot bear any opposition to his opinion, if he cannot so much as give a patient hearing, much less examine and weigh the arguments on the other side, does he not plainly confess it is prejudice governs him?”

JOHN LOCKE.

Many concurring circumstances have turned my thoughts of late towards crime done by the insane, and to insane criminals. Notably so the reading of the last July number of the “*Journal of Mental Science*.”

I am more especially concerned as to their treatment when they shall have entered the doors of the asylum.

Before accepting my present post, the question of the treatment of the inmates of criminal lunatic asylums had not obtruded itself on me.

Unfortunately, I had never visited an asylum for the criminal insane, nor, I am ashamed to say, had I sought information in other ways. Now, at this distance from centres of vitality, when one's bookcase fails, information is far to seek.

Granted that certain insane are to be distinguished from the rest as criminal, the question of the necessity for differential asylum treatment necessarily arises, and would seem to have been decided in the affirmative, inasmuch as special asylums are built for them in many places.

In other places, fortunately or unfortunately, such special provision is not made, but the two genera are herded together in one building, and no adaptation, if such be necessary, is made to their wants.

It is much to be wished that an authoritative voice should make known the received lines to be followed in dealing with the criminal insane in their treatment, medical and penal, as well as in the buildings.

My own experience is that, having referred an insane to the genus criminal, we are too apt to think of him as criminal to the full connotation of the term. We do not wait to assign

him to his proper species, and, worse, deal with him as we think.

The term criminal lunatic includes those who—

1st. Have committed crime, being insane.

2nd. Are charged with crime, but found insane at their trial.

3rd. Those becoming insane after sentence for crime done when sane.

Putting aside the gravity of the offence, in actual life a better classification would be—

1st. The habitually lawless.

2nd. The habitually law-abiding when sane.

It would then be found that the majority of the first and second species of the first classification come under the head of the “habitually law-abiding,” and the majority of the third under the head of the “habitually lawless.”

The two great classes of criminal lunatics should be separated. Dealing with the sane, to herd together the “habitually law-abiding” with the “habitually lawless” is recognised everywhere as a wrong—in theory, at least.

It is not less wrong when dealing with the insane.

Of the “habitually lawless” too many find their way from gaol into ordinary lunatic asylums.

I well remember how, in my old *Alma Mater*, the advent of such a one caused disgust, his residence trouble, and his exit general congratulation.

The fate of the insane, criminal but “habitually law-abiding,” is more especially what I seek to know. Where is the information to be obtained?

In many cases there must be so little to distinguish him from the inmate of an ordinary asylum. True, he has been guilty of a crime, perhaps the greatest of crimes; but accident may have determined his fate—the weapon and opportunity to hand, or he was friendless, and there was no one to intervene between him and his intent.

Society awards him perpetual seclusion, penal treatment, perhaps. It is impossible to question the justice of the seclusion. The individual must bow to the primarily important law of the security of the community.

Contrast the lives of two men—smitten alike by the fellest disease man can know. One in his friendlessness commits homicide; one is shielded by friends. One may awake to find himself a prisoner, who knows not the end of his imprisonment. He is detained during Her Majesty’s pleasure. The other, more fortunate, on awakening returns to freedom and all that makes life worth living.

Nevertheless, the fact of the crime remains. The guilt should be the measure of the punishment; and, by howsoever much the imprisonment fails, by so much should the punishment be increased.

It is the whole question. Given a crime done by an insane person, to measure his guilt and his punishment.

Opinions differ. No full, and limited responsibility have, or have had, their adherents. The French law says, "There is neither crime nor misdemeanour in an action, otherwise culpable, committed at the moment when the accused was in a state of insanity."

The English law measures the guilt by the knowledge of right and wrong.

The late Lord Chief Justice of England says, "There are forms of mental disease in which, though the patient is quite aware he is about to do wrong, the will becomes overpowered by the force of irresistible impulse."

The regulations of the Ceylon Lunatic Asylum recognise limited responsibility. They say—

"No further relaxation should be allowed of the stringency of imprisonment and penal discipline, and of prevention of communication with each other, and especially with visitors or other inmates of the asylum, than due medical treatment requires. It is only in comparatively rare cases—such as idiocy—that a person is wholly devoid of the power of self-control and of the consciousness of wrong, and, therefore, wholly free from legal and moral responsibility for criminal acts. In a very large proportion of cases insanity, as is well known, is only recurrent or temporary, and not continuous; and is definitely limited to some special range of ideas or emotions; and this especially occurs in cases where there is only lesion or disease of some portion of the brain organ."

Under the French law penal treatment of the insane is out of the question.

Under the English it is enforced.

The penal treatment of criminal lunatics in criminal asylums is the point of my enquiry.

[We shall be glad if Mr. Plaxton's suggestive paper calls forth another on the subject from some of those who have the charge of the criminal insane in this country. Mr. Plaxton will find an article in this Journal on the question, in addition to that he refers to, in the July number of 1879. Dr. Nicolson's papers on the "Morbid Psychology of Criminals," appeared in Vols. xix, xx, and xxi; and on "Responsibility in Criminal Cases, in Vol. xxiv. Why does not Dr. Nicolson reprint these valuable papers?—Eds.]

Gudden's Method in the Investigation of the Anatomy of the Central Nervous System. By JAMES HYSLOP, M.B., C.M., Assistant Physician Royal Edinburgh Asylum, Morningside.

Perhaps there is no system which in recent times has received more attention, from an anatomical as well as from a physiological point of view, than the central nervous system. The brain being built up of cells and fibres of a soft and friable material, imbedded in a still softer substance, and arranged so as to form a complicated network of fibres suspended between and connecting different systems of nuclei, it is not to be wondered at that its minute anatomy, previous to the employment of the various hardening methods now in use, was very imperfectly known. Even now, notwithstanding our present means of hardening nerve tissue, and improved appliances for preparing sections for microscopical examination, we often experience considerable difficulty in its investigation, not the smallest of which is encountered when we endeavour to follow the different nerve fibres and associate them with their proper nuclei. Sometimes this difficulty arises from several bundles of fibres connected with different nuclei running together, or occupying almost the same position and at other times from several nuclei connected with different groups of fibres being placed very close to each other, so that we may have in close proximity nuclei, or the fibres connected with nuclei, which differ greatly in function.

Having, through the courtesy of Professor Gudden, had the privilege of working in his laboratory during the last summer, I had the opportunity of seeing his method* of investigating the anatomy of the central nervous system carried into effect, and of observing some of the results derivable therefrom, which appeared to me very much to simplify, if not altogether to get rid of, at least some of the above-named difficulties.

It may be convenient in a few words to consider firstly the physiological, and secondly the anatomical, bearings of the Gudden method. Considered physiologically, it is essentially experimental, advantage being taken of the atrophy in the nervous supply to an organ which has long been known to

* Described in the "Archiv. für Psychiatrie und Nervenkrankheiten," Band ii., p. 693.

follow destruction of the organ or disuse of its function. Gudden was the first to point out in this connection the marked influence of age upon the resulting atrophy. He experimented upon the lower animals, and taking animals of different ages, he found in extirpating organs, &c., and noting the result, that the younger the animals operated on, the greater the amount of atrophy which took place in their nervous supply. But the amount of resulting atrophy is not the only advantage to be derived from selecting young animals for our experiments; another and a very important consideration, in so far as the experiments may, in all probability, more readily be permitted, is the imperfect condition of sensibility in young as compared with aged animals. Eyes may be extirpated, nerves divided, and portions of the brain substance removed in young rabbits—*e.g.*, on the day of or day after birth—without their manifesting any marked symptoms of pain, and a few hours after the operation it might be difficult to distinguish among several which had and which had not been operated on, so soon do they seem to get over any little shock which may be caused by the use of the knife. It is right here to remark, however, that when the olfactory or trigeminal nerves are interfered with, the young animal shows marked symptoms of pain. In addition to the impaired state of sensibility not a little of the success of the operation depends upon the greater coagulability of the blood, and more healthy condition and quicker healing of the wound in young animals. It is a fact that what would be considered very serious, or almost necessarily fatal operations if performed on full-grown animals, are not only recovered from, but also in most cases seem to be attended with trifling disturbance when young animals are dealt with.

Although almost any of the lower animals may be made use of for the experiments, Gudden prefers young rabbits, not only on account of their being brought forth in a low state of development, but also on account of the provision made for their comfort by the mother, who, as a rule, is careful to see that her young are provided with a warm and comfortable nest—a circumstance which conduces greatly to their recovery. Having extirpated or destroyed the organ, the nervous supply of which is under consideration, divided the nerve or nerves connecting it with the brain, or removed a portion of the brain substance, as the case may be, a sufficient time is allowed to elapse before killing the

animal, so that complete atrophy of the nervous connections may have taken place. From two to three months will, in the majority of cases, suffice, or the animal may be left till it is full-grown, and then it is killed, and its brain, after having been removed and carefully stripped of its membranes, is placed in a saturated solution of bichromate of potash, to which a small piece of camphor has been added. The camphor apparently acts as an antiseptic, and by its means we are enabled to leave the brain for a week in the same solution, without any resulting turbidity in the fluid, while afterwards a much longer time may elapse without our requiring to change it.

When the brain has been sufficiently hardened by this method of treatment, it may be subjected to a microscopical examination with a view of noticing the further changes which have taken place. Preparatory to this it is carefully imbedded, by means of paraffin or other imbedding agent, in the Gudden microtome.* This instrument is specially adapted for cutting sections of the whole brain. It consists of a cylinder of sufficient size for this purpose, surrounded by a large flat trough, which, after the brain has been imbedded in the cylinder, is filled with water, and the sections are cut with a long knife under the water. In this way they can be much more easily and successfully manipulated; every section is retained, and each section, when cut, is transferred by means of a piece of wire gauze from the trough of the microtome to a small basin of water. The gauze should be sufficiently fine to act as a support to the section, while at the same time allowing the water freely to pass through its meshes, and so prevent the risk of the preparation sliding down into the water, which it is apt to do when a solid piece of material is used to lift it. (It should be noted that, if the sections are to be stained with chloride of gold, this contrivance is inadmissible, as it causes marking of the preparations where they have been in contact with the metal.) The basins containing the sections are arranged in a continuous series. The next process consists in staining the sections. This can most conveniently and satisfactorily be done by transferring them with the help of the gauze into another series of basins, containing a considerable quantity of a very weak

* See description of this microtome, by Gudden in the "*Archiv für Psychiatrie und Nervenkrankheiten*," Band v., p. 229, and a woodcut of the improved form of instrument in the same *Archiv*., Band vii., p. 395.

solution of carmine; or they may be transferred directly from the trough of the microtome to the carmine solution. The sections require, as a rule, from 24 to 30 hours to stain; but of course the time required will vary according to the strength of the carmine solution, as well as the amount of hardening of the tissue by the chromic acid.

When stained, the sections are again placed in basins containing water, which may be slightly acidulated with acetic acid, and are thoroughly washed. This done, they are taken up on slides, and after being labelled and numbered in the order in which they occur, are next placed in a bath of absolute alcohol. After being removed from this bath they are cleared up with oil of cloves and mounted in the ordinary way. By this method, it requires on an average about 15 minutes for cutting, staining, and mounting each section, which is a very short time, especially when we take into account the size of the preparations. The advantage of such a method of experimentation followed by such sections will be best appreciated if we take a very simple case as an illustration. Suppose, *e.g.*, that one of the eyes has been removed from a young animal, and that we kill it, say, six months after the operation, we should find in all probability on removing the brain that the abducens, trochlear, and oculo-motor nerves belonging to the extirpated eye had entirely disappeared; that the opticus was represented by a transparent band of connective tissue; and when we came to examine say a transverse section at the level of the abducens, trochleares, or oculo-motors, we should perceive that on the one side the fibres were normal, while on the other there was no trace or at least only a small trace of them; and following by means of the series of preparations the fibres of the normal side to the central nucleus, we should find it also normal, while on examining a corresponding portion on the opposite side we should find that, if the nucleus were at all represented, it would only be by a slight darkening of the tissue as a result of the atrophy. Consequently, from a comparison of the two sides of the brain or medulla, we are able pretty definitely to state in such a case which nerves and nuclei are connected with the eye, and to distinguish them from others which may be in close proximity to them. The opticus is more complicated, but the above will serve as an illustration of how matters may be simplified.

It is in the case of the cranial nerves and their central nuclei that the Gudden method is most easy of application,

and as yet the connections of these have not been traced further centripetally than their first central ganglia. It might be worth while, however, to enquire whether the atrophy could not be traced further than the central nucleus—whether, *e.g.*, it could not be traced along the fibres connecting the nucleus with the convolutions of the brain, *i.e.*, along the “first projection system” of Meynert, and so aid us in settling the much-debated question of the localisation of cerebral functions. Of course, so long as the law remains in its present condition, it would be no easy matter to obtain the requisite authority for conducting experimental investigations in this country; but if the small amount of suffering caused to the animals by an employment of this method could be demonstrated, it might, I think, pave the way to the granting of certificates for at least this, which appears to me to be a not unimportant class of experiments.

CLINICAL NOTES AND CASES.

Case of Prolonged Maintenance of a Fixed Position (with photograph). By EDWARD G. GEOGHEGAN, M.D., Assist. Med. Officer, Borough Asylum, Portsmouth.

J. G., aged 32, naval pensioner, was transferred from Fisherton House to the Portsmouth Borough Asylum, on October 21, 1879. No heredity. Father living, active and intelligent. No history of phthisis or drink in family. He entered the Royal Navy as a boy, and was always regarded as a steady, intelligent seaman. Eight years ago he was a first-class seaman gunner. At this date some object fell from the rigging upon his occiput, and rendered him unconscious for a short time, but apparently produced no further result. After this he went through a three months' torpedo training on the “Vernon,” and passed the examination at the end of the course with credit. This indicates that most of his intellectual faculties at that time (about five years ago) were quite unimpaired, as the examination is one which very many fail to pass. Shortly after this he was drafted into the coastguard. About six years ago he married, and has two children—both weakly, but apparently of fair intelligence.

About three years ago his wife died after childbirth (the stomach was found post-mortem protruding through the diaphragm and lying under the left clavicle). This event seemed to prey upon patient, and he grew very depressed and vacant. He was treated at first at Haslar Hospital and then at Great Yarmouth Asylum (1878). When his pension ceased he was discharged to the Portsea Island Union. After he had been here a month he assumed the attitude to be presently described, and on April 30, 1879, was admitted to Fisherton House. He is described as having been "silly" in the Workhouse, grinning without cause, never speaking, and standing for long periods in one attitude. A few days before admission to Fisherton he assumed the attitude of a corpse in a coffin.

The position he maintained was as follows: He lay flat on his back, with legs extended and feet together; his arms extended, and closely apposed to sides, and palms pressed upon thighs; his eyes shut; eyelids moved slightly at intervals. When one drew an arm from its position—a matter which required a man's strength—and then let it go, it returned to his thigh quickly as though impelled by a powerful spring. Putting him across the seat of a chair he lay as a rigid body. If force was applied to his occiput he could be raised as a rigid bar of iron, resting his heels upon the ground. If placed on his feet he would fall heavily, unless supported. When his eyelids were retracted he turned the eyeballs upwards, so that his pupils could not be seen. He was fed on sop, forced into his mouth with a spoon, and which he masticated with his tongue. Every third day he was placed in a slanting position over the stool, and had a motion. He never moved a muscle of expression, even though a swarm of flies settled on his face, as happened in August whenever the muslin was withdrawn. His muscles were intensely hard and firm. The electrical reaction normal. The knee and foot phenomena could not be determined with certainty. Under chloroform he only relaxed his position very slightly. The ophthalmoscopic examination during the chloroform narcosis revealed an apparently healthy retina. He was for several days exercised by four attendants, who, under my supervision, flexed his arms and legs, and made him walk up and down the room, but his rigidity was only overcome by superior force, and the moment we desisted he resumed exactly the same position as before. On admission, when asked what day it was, he replied correctly, "Tuesday."

Since then he never spoke till February 4, 1881. He slept in the epileptic dormitory, and was then under constant observation night and day. He never moved, except twice at night, when he was seen to rub his eyes with his hands. He had then maintained this fixed position for one year and nine months.

On the morning of February 4, 1881, he was seen by the attendants, while they were dressing the other patients, to move his head from side to side. They at once "took him on the hop," moved his arms, put him on his legs, and talked to him. To their astonishment he walked about and talked. His motions were at first rather stiff. He could not bend forward but very little, could not pick anything from the ground, or rise from his seat without assistance. He stretched his arms and legs frequently with an air of astonishment. He had not the least idea where he was, and when asked "What is this place?" replied, "Oh! I suppose it's on the map." He then declared he was in Simon's Bay (South Africa), and that I was "a captain of the Marines." He had no idea of the time or season. His motions have gradually become quite easy, and there is only a slight rigidity left, which is due to dementia, as when an example is set him he dances a jig or waltz with ease. He scrubs and dusts under direction. He never makes a remark, and now seldom answers a question except after a pause with "Mister, how are you?" His memory is very defective. But some more remote events he recollects well, as, for instance, the ships he first served on. When he is dusting, and the attendant whistles the "still call," patient instantly ceases work. He has once been seen to make a target of one of the windows and level a sweeping brush at it, as though a cannon, and then go through the pantomime of firing it off. On asking him what his name was, he replied "Landers" (his mother's maiden name). He cannot recollect his father's name, and asks me indignantly if I can remember my father's name, and when his father came to see him, he did not appear to recognise him.

From the fact that he was twice seen to move his arms during the period of his fixed position, it was quite plain that the disease was not due to a spinal affection. Nutrition did not seem at all to suffer, on the contrary he gained flesh very considerably since his admission here. There was nothing whatever in the case of a cataleptic nature. He now (February 14) appears to be a case of simple dementia.

A Case of Localised Cerebral Atrophy. By J. WIGLESWORTH, M.D., Lond., Assistant Medical Officer, Rainhill Asylum, Lancashire.

Margaret E., æt. 19 years, was admitted into Rainhill Asylum, Sept. 27th, 1880, under the care of Dr. Rogers, who kindly permits me to publish the case.

Her history was that she had been healthy up to the age of nine years, about which time she received a fright from a drunken father, and ever since then had suffered from symptoms of cardiac mischief, such as palpitation, dyspnœa on exertion, &c. She never suffered from rheumatism, nor did the fright above-mentioned develop any choreic symptoms. In Dec., 1876, she was suddenly seized with paralysis of left arm and leg, and it appears that she was partially unconscious at the time of the seizure, but this loss of consciousness was only temporary; her speech was also affected for a few hours, but this rapidly passed away; she was then admitted into the Liverpool Royal Infirmary, where she remained about three months, and on her discharge from there she had regained some slight power over the left arm, and could walk, though with a limp; since then she had had five attacks of a similar nature, in each of which she became unconscious, and the paralysis of the left side returned in all its completeness, but partial improvement resulted on each occasion after a time; the last attack she had was last summer, and she is said then to have been unconscious for three days. During all this time her mother noticed an impairment of her intellectual faculties, which was discernible after the first paralytic attack, but became intensified with each succeeding one; she was rather childish and silly, but still fairly intelligent. It may be added that patient's father had been a drunkard all his life and died of delirium tremens; her mother is living and healthy. No history of insanity or epilepsy, &c., in family.

On admission patient was found to be well nourished. Area of cardiac dulness much increased, and impulse displaced outwards; short pre-systolic bruit in 4th and 5th left spaces close to sternum, not heard at apex, where first sound was somewhat muffled. Pulse 66, small, weak, and slightly irregular. Urine contained a trace of albumen. Digestive functions well performed. Left arm and leg partially paralysed; left arm kept in semi-flexed position, with fingers flexed into palm, somewhat rigid, and patient had very slight voluntary power over it; left leg weak, but available for progression, patient walking with a limp, sometimes dragging the left leg, sometimes swinging it round. Knee-jerk exaggerated in left leg; ankle clonus not marked; both arm and leg in good state of nutrition. Speech unaffected. Tongue protruded straight. No facial paralysis. No disturbance of vision. Pupils normal, and acted well to light.

Her physical condition varied but slightly after admission. She

was apt to become somewhat cyanotic upon trifling exertion, and not unfrequently wet her bed at night. On Dec. 16th, she got an attack of congestion of the lungs, became very cyanotic and pulseless at each wrist; urine contained one-half albumen, and both feet were œdematous. She had at that time a marked thrill at the heart's apex, and a loud systolic bruit heard over greater part of chest; cardiac dulness extended superiorly as high as 2nd left space. Liver extended an inch below ribs. She died on Dec. 20th.

Her mental condition was pretty uniform during the time she was under observation. Her expression was not unintelligent. She was very quiet and sat still the greater part of the day, rarely speaking unless addressed, but would occasionally make an observation to one of her fellow-patients. She would, however, frequently laugh and grin without apparent cause, and when asked what was the matter, said, "Nothing." She usually replied to questions in monosyllables. There was indeed some obvious impairment of mental vigour, and yet the patient was fairly intelligent. She gave, in reply to questions, an account of her past life, which subsequently turned out to be substantially accurate. Her memory was, however, found to be distinctly, though not greatly affected, as regards events passing around her. She was always well-behaved and docile, and would sometimes inform the attendant if she saw any of the other patients getting into mischief.

One was apt, indeed, from the habit she had of constantly grinning, and from the difficulty there was in getting her to converse, to give her credit for less intelligence than she actually possessed, for she occasionally made observations which showed that her discriminative faculties were by no means in abeyance.

Autopsy.—Skull-cap thick and dense; dura mater not abnormally adherent to skull, but connected with visceral arachnoid over right frontal region, by two or three filiform fibrous bands. Arachnoid opaque, and it and pia mater moderately thickened over right frontal, and anterior part of right parietal lobes, normal over remainder of right hemisphere, and over the whole of left. Left hemisphere reached about an inch beyond right in frontal region. Right frontal convolutions, superior, middle, and inferior, including the continuations of these on the orbital surface—gyrus rectus, &c—were all greatly wasted to at least one-half the size of the corresponding convolutions on the opposite side; they also had a distinctly yellow hue, and were slightly softer on the surface than the rest of the brain; the right anterior and posterior central gyri, the superior parietal lobule, the median aspect of the superior frontal, and the anterior half (about) of the gyrus fornicatus were also somewhat wasted, but in a much less degree; excess of sub-arachnoid fluid filled up the vacant spaces. On separating the temporo-sphenoidal from the frontal and parietal lobes (right side), by opening up the Sylvian fissure, after breaking down numerous small adhesions, in this situation, a space was dis-

closed which would have contained a pigeon's egg; this cavity appeared to have been formed by the total disappearance of the convolutions of the island of Reil, no trace of which could be found; the boundaries of the space were formed by a dense membrane, firmly incorporated with the surrounding brain-tissue. The remainder of the convolutions on the right side appeared perfectly healthy. The ventricles generally were slightly dilated, containing an excess of clear fluid; the anterior cornu, and anterior part of the body of the right lateral ventricle were considerably dilated, and, being filled with fluid, gave the appearance of a cyst, continuous however with the general ventricular cavity; the ependyma was much thickened here; the intra-ventricular part of the corpus-striatum had almost completely disappeared, a small portion only being left, flattened out on the floor; the partition between the outer boundary of the cavity thus formed and the inner boundary of the cavity described on the external surface (as formed by the disappearance of the central lobe) was not more than a line in thickness. The right optic thalamus was also considerably wasted, especially the anterior half; it was diminished in size, altogether by about one-third.

The left hemisphere was perfectly healthy. After removal of membranes, left hemisphere weighed 18oz., right, 13oz.; cerebellum, pons, and medulla weighed 5oz.

On section of the right frontal convolutions, the cortex was found much atrophied, in many places not more than one-third the depth of the corresponding cortex on the healthy side. Microscopically the nerve-cells were found much atrophied, rounded, with processes broken and twisted. The lumen of the right anterior cerebral artery was obliterated at its origin, and the vessel for some two inches beyond this was empty, and appeared to have dwindled into a fibrous cord; the channel was, however, pervious here, and further on the vessel contained blood. Right middle cerebral and main branches appeared perfectly healthy, as were all the other vessels.

Heart weighed 17ozs. Right auricle enormously distended, reaching into second and third left intercostal space; left auricle contained a round ball of fibrin, size of walnut, smooth on surface, and unattached, having a cavity in centre size of small marble, round which the fibrin was disposed in concentric layers. Tricuspid valve much thickened and contracted; would only admit the tips of two fingers; mitral valve also stenosed, but in much greater degree; would only admit a No. 12 catheter.

Both lungs congested and œdematous, and structure tough.

Liver in nutmeg condition. Enlarged; weight 56ozs.

Spleen puckered on surface, and connected by fibrous bands with surrounding parts; structure firm; weight 4oz.

Kidneys, right weighed 3ozs., left 6ozs. Both were very irregular on surface, and presented numerous depressions, evidently formed by the absorption of old infarcts; both congested and tough.

Remarks.—In this case it may be considered that the right frontal and central lobes were functionally destroyed, and I think the results that ensued are fairly comparable with those obtained experimentally by Ferrier. Monkeys deprived of their frontal lobes “remained apathetic, or dull, or dosed off to sleep. . . . and while not actually deprived of intelligence, had lost to all appearance the faculty of attentive and intelligent observation.”* This account appears to me to be a not inaccurate description of the mental condition of the patient, but it must be remembered that, in this case, only one frontal lobe was destroyed.

The cerebral atrophy was no doubt due to insufficient supply of blood, owing to embolism or thrombosis of the anterior cerebral artery, and branches of the middle cerebral.

Contagiousness of Delusions. By Dr. NEEDHAM, Barnwood House Hospital for the Insane, Gloucester.

The interesting cases recorded by Dr. Savage in the last number of the “*Journal of Mental Science*,” under the head of “*Contagiousness of Delusions*,” recall to my recollection a case which was under my care, many years since, at the York Hospital, some particulars of which it may not be uninteresting to relate.

The patient was a clergyman who had taken high honours at college, and become the head-master of a grammar school. There was hereditary tendency to insanity in the family, and his elder brother became insane, believing that he was being conspired against by the members of a family in the neighbourhood, who had succeeded in establishing between themselves and him a “*rapport*” by means of which each could hear the words and read the thoughts of the other, even when separated by distance. Under the influence of this delusion he committed suicide.

Soon after his death my patient took up the same idea, and was sent to the York Hospital, where he remained, the subject of this delusion, but otherwise intellectually clear, up to the time of his death from apoplexy, which occurred after a residence of many years in the asylum.

The delusion under which the younger brother laboured

* “*The Functions of the Brain*,” by W. Ferrier, p. 232.

may be said to have been acquired by contagion from the elder. But it is doubtful whether the term "contagion," in its ordinary sense, can be properly applied to such cases, which I believe to be less uncommon than has been supposed.

Professor Fowler, in his recent "*Life of Locke*," has probably struck the key-note of a sound explanation of the phenomena of these cases in the following suggestive words: "The existence of the various mental tendencies or aptitudes, so far as the individual is concerned, is to be explained by the principle of hereditary transmission. But how have these tendencies and aptitudes come to be formed in the race? The most scientific answer is that which, following the analogy of the theory now so widely admitted with respect to the physical structure of animals and plants, assigns their formation to the continuous operation, through a long series of ages, of causes acting uniformly, or almost uniformly, in the same direction—in one word, of evolution."

Inherited aptitudes would naturally lead to the development, in individuals of the same family, of mental qualities having great similarity, and upon these would depend, in great measure, the specific forms which mental disease would assume, and the character of the delusions which might accompany it. In this way two or more members of the same family might, at the same time or in succession, adopt the same delusion, as in the cases to which reference has been made, and thus might reasonably arise a suspicion of contagion which closer scrutiny would fail to corroborate.

The following letter—one of a long series written to me by my patient—will best illustrate the nature of the delusion under which he and his brother laboured during so many years:—

York, Sept. 22nd, 1862.

MY DEAR SIR,—

I make my report to you of the circumstances in which I have been placed from June 30th, 1862, the date of my last report to you, up to the present time. Those circumstances have been the same as those which I have before detailed to you, and I might refer you to my last letter.

Generally, G. and V. have all this time carried on the same system in exactly the same way as in former letters I have described to you.

I have to inform you that G., who has been in full rapport with me and known all my thoughts, of whatever kind, while still retaining his own individual consciousness, ever since the 12th or 13th of January, 1859, when R. and G. originated this system in respect of

me, has carried on the same system, as I have before described to you, every night and a good part of each day from the date of my last letter to you, June 30th, 1862, to the present time. G. carries on at his own home this system just the same as he did when he was at this asylum, since mere distance has no effect in extenuating its action. G. makes use of this mental status between him and me (arrived at by him and R. January 12th, 1859, by the excitement of my attention to them, and of their own attention to me, the particulars of which organisation I have elsewhere described) to prevent me, as much as he possibly can, from sleeping each night when I go to bed, and early in the morning he resumes this system, in order to interrupt my sleep in the same way.

From the mental connexion and bodily sympathy between G. and me there is no need for him but to *breathe low a succession of formed words* as long and as often as he pleases, which words consist of remarks directly and indirectly on my thoughts, of which he is perfectly conscious. Owing to this system I am obliged perforce to hear whatever he says as well at any other distance as at his own home, 40 miles off. While G. is doing any work that he has to do at home, he carries on this system the same as he did here at the asylum, so that he presents to all around him the appearance of a man engaged in his usual avocations, though a nice observer would remark that his mind was pre-occupied with some absorbing purpose. At home, as he did in this place, he takes particular care to lie awake in bed, and carry on this system during a great part of the night to prevent me from sleeping, and also during the day, while carrying on this system generally as much as he can, he especially takes care to prevent me from sleeping in the afternoon, if I attempt at that time to repair the deficiency of sleep during the preceding night. Both R. and G. have intended, through this system, to make me actually insane by depriving me of sleep as much as they possibly could, or to present such an appearance as if I had *naturally* sleepless nights, without either of them being supposed to have had anything to do with it, or to make me supposed out of my senses, if I mentioned to others anything about them carrying on a system which they sedulously kept concealed from all other persons in the asylum.

I speak now of the relations between me and V., G., and R. having got hold, by some means, of papers belonging to me, which described particularly the system carried on by V. in respect of me, and its mode of origination, adopted and followed the same plan of originating the same system which V. had originated, and arrived by a similar process (*i.e.*, by the excitement of my attention to them, and of their own attention to me, &c.) to the same rapport with me as V. Thus W. and T. V., who have been in mental connexion and bodily sympathy with me from the spring of 1838 A.D. (when they originated this system before I came to this asylum), and all along while

I have been in this asylum, and have, at a variable distance of two or three miles round this asylum and York, sometimes at a greater distance (for mere distance does not make any difference in the carrying on of this system) for above 22 years carried on the system every day, from morning till late at night, of making remarks directly and indirectly on my thoughts, of which they have a perfect cognizance, while retaining their own individual consciousness, are necessarily placed in the same position with regard to G. as I am. W. and T. V. are in rapport with me, and G. is in rapport with me. Whatever remarks W. and T. V. make to me, at whatever distance directly and indirectly on my thoughts, G. hears just as I do; whatever remarks G. makes to me, at whatever distance, directly and indirectly on my thoughts, W. and T. V. hear just as I do. W. and T. V. are conscious of and hear every word G. says to me, and besides carrying on this system to me on their own account, they repeat after G., when he operates on me, separately and simultaneously every word he says. At the distance at which they are they make their remarks in *their own distinct voices*, which I am, owing to my mental connexion and rapport with them, compelled perforce clearly to recognise and hear. G. *breathes low a succession of formed words*, which he can do in presence of others without exciting notice, and which, owing to my mental connexion and rapport with him, I am compelled perforce to hear also.

Both G. and W. and T. V. intend to carry on this system for an indefinite length of time, with the view to make me supposed all along, owing to the natural incredibility attaching to such a system under a delusion, out of my senses, &c.

I remain,

My dear Sir,

Yours faithfully,

To Dr. Needham,
The Asylum, York.

J. N.

Case of Mania greatly improved by the use of Hyoscyamine.
By GEO. H. SAVAGE, M.D.

M. C., a governess, single, well-educated, mother of unsound mind; father eccentric and violent; at the age of 19; the first mental symptoms were noticed, about the same time that she had scarlet fever. Overstudy was the cause given for the present attack, but domestic misery was the more likely cause. She was taken to another hospital for the insane in 1879, the certificates stating that she was noisy at night, often keeping awake all night to count aloud; she also tore up her clothes, looked wild and excited; she was completely

changed in manner ; she had delusions that her friends were "humbugging her," and that she had a task of study to do, and must keep on till it was done, hence her constant counting and multiplying ; she slept badly, and had had chloral regularly ; she refused food, was clean and tidy, affectionate to the attendants ; very musical and pleasant in the periods of health ; menses regular, but at times painful, and always causing mental instability. The day after admission this patient talked all night ; she was then quiet and apparently well for some weeks, she then had recurrences at shorter intervals, so that seven months after her admission it is recorded that "she is hardly ever two following days well." The nature of the attacks was as follows, each repeating the others in a most exact way : the patient became solitary, gave up music, and avoided notice ; she then was noticed to have very prominent eyes, with a wild staring aspect ; she, at the same time, changed her decorations, and made her bracelet into a brooch ; her hair became rough and coarse in appearance ; she would next seem occupied with hallucinations, would laugh to herself, and would rush wildly about the galleries. When she went to bed she would never for a minute cease counting or multiplying, and in the morning her bloodshot eyes bore evidence to her disturbed night. One day, or at most two, of depression would at first be followed by complete recovery. There was no perfect regularity, and the menstrual periods did not represent the only attacks. I would not give chloral, as she had already had a good deal without any real improvement, and I considered it only a means to get quiet for the ward, and not for the patient's good. I may say the patient begged hard to have it, and I gave it in doses from 20 to 40 grains on several occasions for trial.

On June 14th, 1880, I gave her one-sixth of a grain of Merck's hyoscyamine in the morning, and another sixth at night. She was within an hour of the first dose rendered powerless ; she looked terribly ill, but on June 16th was herself again. She spoke of the medicine as being fearfully strong, and asked only to have one dose in her next attack. A slight threatening of an attack coming on, June 24th, I gave one-sixth of a grain, this produced quiet and a rapid recovery, no return of excitement was seen till July 7th, when I sent her down to our country house, giving instructions that in case of an attack the medicine was to be given. In the middle of September, she was reported as

having had no threatening for a fortnight, and from that time, practically, she kept well. She was much disappointed that I would not send her out "well" at once, but I kept her under observation till December 15th, when she went to her friends. She went on very well, though not judiciously treated, being left too much to herself. At the end of January, she was brought back, not having had any hyosecyamine for over three months, and having been in perfect mental and bodily health. She has had one attack since, in which the drug was as energetic in its action as ever.

I report this case, not as I at one time hoped, of a cure, but rather to point to the use I make of hyosecyamine and allied drugs, not to produce quiet, but to break any tendencies to regularity of return in attacks of excitement. I feel very strongly against the regular use of narcotics, considering that they not only do not cure, but that they, in many cases, act injuriously, making possibly curable cases incurable.

Her case, if carefully examined, is seen to be one in which a year of other treatment had done no good, the prospect was as bad as it well could be, for the intervals of sanity and quiet were rapidly becoming less, and her state even in them was not so good. She was more irritable and unstable, had less self-control and confidence in herself. This being the case, and hyosecyamine at once checking the return of the attacks, and as certainly preventing attacks when given with the first signs of return, the intervals becoming longer and longer, with this cautious use of the drug I think I have shown, the case to be one in which good has been done. Much as I have opposed the use of chloral, opiates, and similar drugs, I admit their use in suitable cases, and have at present a case of active melancholia, associated with ovarian irritation and salivation, in which belladonna checked the salivation, and chloral cured the melancholia in a young girl, acting as well with her as morphia does in similar cases in older women.

OCCASIONAL NOTES OF THE QUARTER.

The Influence of Democratic Feeling in America on the Management of Public Institutions.

The mode in which the political constitution of a country affects its social arrangements has always been an interesting subject of study. But there has not been nearly so much attention given to the way in which the politics of a country affect the origin, government, and administration of its public institutions. By this term we mean the Schools, Colleges, Hospitals, Almshouses, Asylums, and benevolent institutions generally. That they are strongly affected not only by the political condition of a country but by the temporary changes of current politics, no one can doubt who has compared such institutions in a few European countries, or even in the three divisions of the United Kingdom. The origin and administration of the lunatic asylums in England, Scotland, and Ireland have been affected by the political constitutions of those divisions of the Empire, as we all know; and the hopes and fears of those who govern them are often raised by changes in the political parties. No one would expect quite the same provisions in a Lunacy Bill brought in by the Conservatives as in one promoted by the Liberals. America, with its distinct States and State rights, its democratic constitution, its intense and jealous parochialism as regards local affairs, is an admirable field in which to study this branch of sociology. Indeed, its public institutions cannot be understood except we take into account the political constitution of the society in which they originated. One might as well criticise a landscape without reference to the sunshine and the geology of the country as speak of colleges or asylums of America without taking into account its State legislatures, its county government, its town meetings, and its never ceasing electioneering. An educated democracy is easily moved, is very much given to spasmodic bursts of charity, and is always creating public institutions of some sort, while it is always intensely jealous of them, and often very unjust to them, after they are created. There is no finer field for small autocrats, too, than in an absolute democracy. Conservatism of a certain kind is

never so secure against change as when it has universal suffrage to back it. Individualism is more marked in America to-day than it is in Great Britain, but it takes different directions. Plenty of people are to be met with in America who declare that Washington was an old fool, that the present Republic there is a mistake, that universal suffrage is a delusion, and that they would be better off under an Emperor. If the head of a public institution there is strong and bold enough he may administer its affairs further off the beaten track than could be done in Europe. But on the other hand all the average and weak administrators dare not for their lives turn to the right or to the left of the path which the public opinion of the place and time prescribe. It is fortunate for them if the popular suspicion of placeholders and administrators does not now and then paralyse them outright. It must be taken into account, too, that the placemen suffer for the sins of the politicians. The latter are assumed to be self-seeking and unscrupulous as a matter of course, and unfortunately they often claim as the spoils of war posts of administration, direction, and government in public institutions. Thus those institutions get mixed up in the popular mind with politics, certainly not to the advantage of the former.

In America there is a far greater social equality between the governors of asylums and the physicians than there is in the English or Irish counties. There is no such thing there as an asylum physician who does not mix in the same society as his Board of Governors. This is certainly more conducive to his *amour propre* than the state of matters in some counties of England, and it gives him a more direct power and authority with them. But for that very reason he needs to be at all times educating his masters in some way, who are often changing and often personally jealous of his superior knowledge of his own subject. This accounts for the tone of rather strained philanthropic zeal that pervades many American Asylum Reports. The expression of religious sentiments in reports, too, is thus accounted for, conforming to the remaining shadows of the former puritanical modes of feeling prevalent in many portions of the country. The direct dependence on the local public opinion gives a sense of insecurity of tenure, and produces a faint-heartedness of management that we think often affects the efficiency of the institutions. In reality there is far more conservatism in American asylums than we have here.

There is far more diversity, too, comparing one asylum with another, there being no central authority to produce uniformity, and convey the precedent of what is done in one place to another.

There is thus in America a more direct appeal to the public mind as to the philanthropic character and aims of hospitals for the insane than here, and less of a settled down official character about them. The pulse of that human charity that originally started such institutions has to be more constantly felt and relied on than here. Therefore the external and visible matters need to be more attended to. The imagination of the public requires to be more directly appealed to. In no way can we account for the magnificent costly architecture, the grand porticos, the gorgeous entrance halls, and the luxuriously furnished reception rooms in some of the new asylums in the northern States. A strong man at the head of an institution in America who is reckoned fairly honest, who can do electioneering so far as it concerns himself, who can make a good public appearance, and who has a good social position, is master of the situation. He can do anything and get anything, and make his governors believe anything, but he can't rest on his oars. He must always be on the alert.

There is a curious instructive tendency there to discount any clamour very largely. While the public sentiment may admit there is something in a cry, yet it never admits that there is as much in it as seems. This has produced a crop of cynical newspaper expressions about such matters, and makes the grumblers use strong and exaggerated language to show how terribly in earnest they are. This, like the old cry of "Wolf!" defeats its object, and sober-minded reasonable people, never know how much to believe of such statements. The press in America is keenly on the look out for sensations, and does not scruple to manufacture them when they don't come fast enough. The public institutions are reckoned fair game for this process. With this there is a great sensitiveness to stand well with the English speaking world in general, an intense emulation among the best men to excel, if possible, in some things, and a proud resolve that the Republic shall at least equal anything that the old world can produce.

PART II.—REVIEWS.

On the Construction, Organization, and General Arrangements of Hospitals for the Insane, with some Remarks on Insanity and its Treatment. By THOMAS KIRKBRIDE, M.D., LL.D., Physician-in-Chief and Superintendent of the Pennsylvania Hospital for the Insane at Philadelphia, &c. Second Edition: Lippincott & Co. 1880.

This is the second edition of a work which was originally published twenty-six years ago. Its author is well known in America as one of the most experienced and distinguished of the many able men who have in that country devoted themselves to the study of insanity and the treatment of the insane. This has been his life-long work, the success of which cannot even be measured by its duration of forty-two years. In Philadelphia Dr. Kirkbride's name is a household word and suggests to the minds of all men a self-denying devotion to duty, high aims of life, a great enthusiasm for that portion of humanity that is mentally afflicted, and a calm, courteous, and now venerable personal presence. His asylum is identified with him and known by his name. When lately in his city we found the car conductor knew nothing of the Pennsylvania Hospital for the Insane, but could at once take us to "Kirkbride's Asylum." With such an experience and such a *record* (to use a very expressive American adaptation of that word, meaning a man's whole work and the estimation in which he is held) the author has put forth his fortified and corrected views in regard to asylum construction and management. The book is clearly written, systematic, and most instructive. It is an invaluable landmark too, showing the stage at which asylum construction and management had arrived in the lifetime and experience of one man who wrote in 1880. If some of the views expressed are too conservative, if there is too little said about the future developments of the subject—some of which are even now upon us—if, in short, there is too much finality in the book, no one can be surprised. Finality is a right and proper psychological stage of life to which the men who have fought the fight and won the victory in good causes have a right to come, and, as a matter of fact, do come at a certain period. It would be a poor compliment to

Dr. Kirkbride and his book were we to speak only of those things in which we agree with him, and so to assume that he was not robust enough to hear those things wherein we differ.

Dr. Kirkbride estimates that as one to every five hundred of the general population is insane, the State should provide accommodation for that number without regard to class. "There is no justification for a State providing accommodation for one portion of its insane and having the rest uncared for." In this country the dictum of most publicists would be that there is no justification for a State providing accommodation for any but those classes who cannot provide it for themselves, but we are changing in this opinion. The author, notwithstanding Dr. Pliny Earle's facts and opinions on the subject, says that about eighty per cent. of the "uncomplicated" cases of insanity, "properly and promptly treated," may be expected to recover. Of course this entirely depends on what *uncomplicated* is held to mean. He advocates the hospital treatment of all cases at once, and says that the number of lives lost and of persons injured by irresponsible people at large in the United States exceeded in a year all the deaths and injuries from railroad accidents. It is a pity that the figures were not given. We think there is a fallacy somewhere. He will not hear of anything but State Hospitals. "The plan of putting up cheap buildings in connection with county or city almshouses for the care of the insane poor and under the same management cannot be too severely condemned." As a matter of fact, we find in this country that many cases of insanity can be quite as well treated at home, and recover there; while under proper supervision and inspection, we find that some of the imbecile and incurable insane are sufficiently well provided for in poorhouses. As regards the amount of land attached to an institution, Dr. Kirkbride gives one hundred acres as the minimum for every asylum, and thinks that "it is hardly possible, under any circumstances, for such an institution to control too much land immediately around it." But it sounds oddly to us to find the direction given that "visitors or other strangers" should never be allowed to pass through the pleasure grounds "unaccompanied," our experience being that nothing is such a source of pleasure to some patients as to see a few judicious visitors and have a chat with them in the grounds. And still more strange seems to us the dictum of the social and

kindly author, that "the pleasure grounds of the male and female patients should be entirely distinct." Surely Dr. Kirkbride is thus following a traditional direction without thinking of the essential principles of human nature which he knows so well—one of which, the craving of the sexes for each other's society, if gratified, is likely to give a humanizing cheerfulness and contentment to his patients. We are extremely glad to find this veteran of American alienism saying that four-fifths of all the patients can and ought to be out in the open air for four hours a day. Our own experience is that nineteen-twentieths of the patients ought with infinite benefit to themselves, to spend this time in the open air in average weather. Dr. Kirkbride still inclines to the original resolution of the American Association of Asylum Superintendents that about 250 is the proper size of an asylum. We most cordially agree with the opinion that a hospital for the insane "should be in good taste, and that it should impress favourably, not only the patients but their friends and others who may visit it. It should have a cheerful and comfortable appearance, everything repulsive and prison-like should be carefully avoided, and even the means of effecting the proper degree of security should be marked as far as possible by arrangements of a pleasant and attractive description." He inclines to a three-storey building, with a central administrative block and eight similarly constructed double corridor wards in the form of retreating wings on each side. He thinks that "all hospitals for the sick or insane should be built in the most substantial manner." When lately giving directions to an architect for the building of a new pavilion, we told him, "Build to last for five-and-twenty years only. By that time ideas will have changed, and my successor can carry out his own notions and those of his time."

The technical directions given as to the height and size of the rooms, their ventilation and lighting, are excellent. But we differ *in toto* with the author in regard to many points of construction of the greatest importance in our judgment for a hospital for the insane. And the points on which we differ are not those that may be thought peculiar to this country and climate. We believe that a good Hospital for the Insane for the Northern and Middle United States would be a good hospital here, and *vice versâ*. We do not believe that the type of mental diseases differs essentially in the two countries, and mere climatic variations only need varia-

tions in the mode of heating and ventilation to suit them. We think that structural and administrative arrangements, modes of life, employments, and recreations that will suit our country will suit the other too. We have a profound conviction that human nature is much the same on both sides of the Atlantic, and that it is only by conforming all the arrangements for the life of a patient in a lunatic asylum to the essential principles of human nature that we shall produce cure and happiness in either country. An outlet for the evolution of morbid action going on in the brain by work and walking in the open air will best cure mania in both countries. A trusting manner and a fearless confidence in the effect of rational modes of employment will have the same good effect on morbid suspicions everywhere; while bolts and bars and gratings will everywhere suggest imprisonment and escape. If our medico-psychological studies do not teach us that the sense of ill-being and the paralysis of the love of life in melancholia are better treated by active efforts at distracting the mind from its morbid humours rather than by mere watching and precautionary means, then they have been directed on a wrong basis. If the knowledge of the world and of human nature he has acquired has not impressed an asylum physician that confidence tends to produce content, trust to beget self-respect, and a soft answer to turn away wrath, while mere watching, guardianship, and repression cause irritability, suspicion, and violence, then his experience has been defective or distorted. Those principles apply strongly to some of the arrangements advocated by Dr. Kirkbride, now happily almost obsolete here, such as the gratings and guards over doors and windows in nearly every ward, special suggestive window sashes, fixed shutters, and loopholes in doors, and the expensive precautionary arrangements everywhere. In a new, magnificent, and most costly asylum in America, we saw in four wards windows with small panes strong enough to keep in a rogue elephant, extra guarded by huge iron gratings from roof to floor fixed about a foot or two inside of the windows. The impression on going into one of those wards was exactly like going into a den for wild beasts, and, of course, the patients, by an inevitable law of human nature, responded to the influences around them, and looked and acted as if degraded below the level of humanity. As there was nothing to break, and nothing to do, and nothing to hang themselves with, they walked up and down like tigers, or slouched on the

floor, or chewed the leather gloves that some of them had on to prevent them tearing the unsightly clothes they wore; while the nurses were all in their own rooms and might have been just as well in bed, there being nothing for them to do. In this institution the sick ward was on the top storey, as if to secure that its unfortunate inmates should not get a breath of fresh air outside. We shall never forget the sense of sickening despair and lively indignation we experienced on entering those wards. That State had spent its money lavishly on that building. Good men and women were congratulating themselves on the great philanthropic work that was being done there, and yet, through the ineptitude and ignorance of somebody, the state of matters we have described was allowed to exist. It was exceptional and utterly unlike the state of matters in most of the asylums we saw, but it was the logical outcome of the system that protects everything that will break, fixes everything that will move, and takes away everything that will hang or hurt, in a ward for excited or suicidal patients, instead of making the attendants responsible for those things, trying to cure those morbid tendencies, giving scope for morbid motorization, and thus running legitimate risks for the sake of the happiness and cure of the patient. We have seen both systems tried in the same community of patients, and the result was such that we now most unwillingly, but most earnestly, differ from the opinion of so great an authority and so humane a man as Dr. Kirkbride in regard to many of the safeguards which he thinks it right to recommend in this book. To our American brethren we say, with the profoundest conviction of its truth and importance to the insane, that such prison-like and precautionary arrangements are not required, and that they are harmful. If they knew the comfort and satisfaction of a daily visit to an unrestrained, busy, quiet, trusted, and contented community of patients as compared with that of an excited, irritable, idle, suspected, and confined one, they would not doubt for a moment that the balance of good lay with the management that tended in any way to produce the former, notwithstanding the apparently greater risks of suicide, escape, and accident, and the slightly larger staff of attendants required. The increment of happiness to the mass of these unfortunate patients afflicted with the direst malady of man would be so manifest as to overpower all the objections to the new system. We are

well aware of the seeming arrogance and self-conceit of these recommendations. We began to read Dr. Kirkbride's book with the most resolute determination not to say anything in its review that would pain or annoy him or his brethren devoted to his work, from whom we had received unbounded hospitality and lavish kindness, and we are sure that our honest difference from his views and those prevalent in America will not be taken in ill part. All we say is, try fairly the newer system for the sake of the insane and for the sake of psychological medicine before it is condemned.

In many of the arrangements of its hospitals America is ahead of us, such as perfect artificial ventilation, complete means of heating, dumb waiters, distribution of food ovens, dust flues, soiled clothes hoppers, ward drying rooms, laundries, &c. Dr. Kirkbride lays it down as an axiom that "no ventilation can be deemed worthy of the name that is not forced." "Forced ventilation is required at all seasons and at all hours." The system of air flues, the steam pipes and radiators, the perfection with which great currents of hot or cool air are sent into every room and ward, and the foul air exhausted by other flues, the great fans for propelling the air in hurricane blasts in a new American asylum, strike a British visitor very forcibly. But we did not see an ordinary open fireplace in any asylum there, and we confess that we missed greatly this old world institution, unscientific and wasteful as it may be. But one need not talk of cost, for if open fireplaces were suitable to the climate the interest on the expenditure for all those flues, fans, and radiators would keep an open fire burning in every room in such an asylum for ever. Never shall we forget the boiler room in a new American asylum we visited. In it were six magnificent boilers, beautifully furnished and fitted up—three for use and three for emergency. It looked just like the boiler room of the Cunard steamer in which we had crossed, but far more tidy and grand. Dr. Kirkbride estimates the cost of such an asylum as he recommends as being from £200 to £300 per bed, but we visited two new institutions which had cost £750 a bed. He quotes the figures for the additional wings at his own hospital, which cost about £250 a bed, and the department for males in the same hospital £280 a bed.

Looking at the plans, of which the author gives a number, the criticism one would make on them is the monotony and sameness of the different wards. Granted that one such ward is the best of that kind that can be devised, surely all

patients, not being in the same condition, don't need the same kind of ward. In building a dwelling-house, who would think of making all the rooms alike? Cannot structure be adapted in some degree to the wants, mental states, and likings of patients labouring under various diseases and in different stages of convalescence? Is the mad Scotsman who needs no locked doors at all half the time he is mad, and enjoys the arrangement, an animal utterly unlike the mad American who is locked up till the day he is a free man? Are the detached convalescent wards and quiet working wards without locks or guards, or even small panes of glass, which are everywhere considered as the necessary accessories to a well appointed asylum here, not in place in America at all? The plan of an infirmary ward as given in this book is not according to our ideas of one. It has no variety of dormitories, no proper day-room, and no separate dining-room. The endless series of wards with a corridor in the middle and single rooms on either side of "the double corridor," which is the prevailing idea in America, we consider by no means the best form of ward, far less the *only* good construction. We think the number of single bedrooms far too large in proportion to the dormitory accommodation in all the plans given, and we prefer a common dining hall or *table d'hôte* to the American ward dining-room. They are all intensely *institutional*, and to our mind too little domestic looking in their arrangements. But some of these things are matters of taste, and *de gustibus*, &c. Architects are deeply responsible for many of the faults of asylums. They don't like any variety inside or out that won't fit into their grand elevations and façades. They shirk the trouble and thought of making the arrangements of each ward different from the others. They have no means of knowing the real needs of the insane, and they take little interest in this all-important aspect of the question, for any credit they expect is from the outer looks of the building.

When we come to the chapters on the "Organization and General Arrangements," we find ourselves in almost complete agreement with the ripe experience of the author. In opposition to doctrines that are now being taught in America he advocates one centralized government under one responsible head, and that "a well-educated physician," who rules, governs, engages, and dismisses the whole establishment, and is responsible to his trustees and the public for everything. It is a great error to suppose that there is any detail

about the management of a hospital for the insane beneath the dignity or unworthy the attention of its chief medical officer. Everything that has any relation to the patients may have an influence on them. "The physician-in-chief, who voluntarily confines his attention to the mere medical direction of the patients, must have a very imperfect appreciation of his true position or of the important trust confided to him." "It is not to be supposed that the chief physician should personally superintend all matters or fritter away his time in a constant attention to details." Those are good sound maxims for the government of an asylum, and we are convinced they will not be set aside without harm coming to the patients. We can scarcely conceive a great asylum working well with lay government and a staff of visiting physicians even of the most skilful kind. The author recommends one attendant to eight patients. Now we have no hesitation in saying that with such a staff no restraint, little seclusion, few guarded windows, will be needed, four out of every five patients should be employed, and few accidents and suicides should occur. His remarks on classification are not so full or so specific as we should have liked. We should have been glad to know the exact composition of his eight classes of patients. He inclines to separate the violent from the calm, the noisy from the quiet, and the neat from the filthy, but lays down no principle of classification except this—"Associate in the same ward those who are least likely to injure and most likely to benefit each other, no matter what may be the character or form of their disease, or whether they are supposed to be curable or incurable." We do not intend to enter on the question of restraint which is touched on in one short chapter, except to say that our belief is exactly contrary to that of the author, when he says, "The number who now adopt these ultra views in reference to mechanical means of restraint in any case of insanity is obviously diminishing." We are glad, however, that Dr. Kirkbride only advocates a minimum of mechanical restraint, and that of a very mild kind, and applied to "one or two per cent." of his patients. From his remarks we conclude that he would not approve of what we came across in one of the newest asylums in America, viz., a young strong Irish girl with first a camisole on and then strapped down to a water-closet seat with a great leather strap, and this in a very strong single room in a ward with every window guarded and every seat screwed to the floor!

for which the assistant physician could give us no good reason, but that she was noisy and occasionally tore her clothes, and for the restraining of whom no medical order had on that occasion been given, implying the damning fact that the *occasions* for restraint were determined by the attendants after the doctor had determined which patients its use was supposed to be beneficial in. Before we saw that sight we had hesitated about condemning entirely the use of mechanical restraint in a few rare and unusual cases. After that we have come to the deliberate conclusion that it is better far to accept the evils of non-restraint than fly for a cure to a system that is capable of such abuse.

We have had in England no work, since Dr. Conolly's famous treatise, on the construction of asylums. There is now considerable need for such a book. When it appears we hope it will be as readable and conscientiously written as Dr. Kirkbride's, which in most respects is a model of what such a work should be.

T. S. C.

Syphilis of the Brain and Spinal Cord. By THOMAS STRETCH DOWSE, M.D., 1879.

Though not a full and complete treatise on the subject, yet this book deals with several interesting aspects of syphilitic nervous disease.

Too much neglected in the past, the study of syphilitic disease of the nervous system has received a great impulse of late years, and numerous contributions have been made to the literature of the subject. Undoubtedly it has often occurred that the syphilitic origin of cases of nervous disease has been unrecognised, but with those whose attention is specially directed to syphilis, there is grave danger of falling into the opposite extreme, and of assigning almost any and every pathological condition to the working of syphilis. The large variety of effects that may be produced by syphilis makes it very tempting and very easy to consign to the syphilitic group many cases presenting more or less obscure, equivocal, or irregularly-grouped symptoms. Hence numerous cases may readily be termed syphilitic on insufficient grounds, and in actual error. And we cannot think that Dr. Dowse has wholly escaped this error when we find him writing as follows:—

“ In my own practice for the past seven years at the Central London Sick Asylum, where I have had over 10,000 patients under my care, of whom I have no hesitation in saying that three-fourths were more or less the subjects of acquired or congenital syphilis, I have often been puzzled how to arrive at a definite conclusion as to the exact type of disease with which I have had to deal ” p. 4.

Surely this is an exaggerated view as to the frequency with which syphilis is to be found in the patients at a metropolitan “ sick asylum.” The impression remains that one who has no hesitation in declaring three-fourths of patients such as these to be syphilitic, may have studied the subject with an undue bias towards the seeing of syphilis in any morbid condition not readily explicable on other grounds. He accedes, however, to Sir James Paget’s views as to the important modifications which syphilis undergoes in persons of different constitutions, and acknowledges the diagnostic difficulties encountered when dealing with syphilitic affections in persons of the scrofulous, gouty, rheumatic, and even cancerous diatheses, and the hybrid character of the clinical manifestations so frequently observed under these circumstances.

In the view of Dr. Wilks and several others, the ordinary earlier manifestations of syphilis are often least marked in the very cases in which the nervous system specially suffers, or it and the viscera. Dr. Dowse adds that, as a rule, he has not found the abdominal and thoracic viscera affected in post-mortem examinations of syphilitic disease of the nervous system. Nevertheless, in necropsies, we have often found syphilitic disease of the nervous system and viscera associated. In relation with the view just named there is every justice in his remark as to the frequent difficulty and questionable certainty in the diagnosis of syphilitic affections of the spinal cord.

Additions to our knowledge of the pulmonary hæmorrhage and the pneumonia sometimes due to syphilis, are much needed, and especially with reference to their diagnosis and to treatment. But no support can be given to the tendency to assume the syphilitic nature of any and every morbid condition occurring in those who are known, or supposed, to have contracted syphilis at some time or other; no light is shed on the matter by general statements, and one cannot readily assent to the exclusive opinion, expressed by Dr. Dowse, “ that if in the second stage of syphilis we had an active

pneumonia, I should unhesitatingly characterise this as syphilitic."

Nor can one see why he should express a belief that "it is usually admitted that the nervous system is rarely, if ever, influenced by the syphilitic poison whilst in the secondary stage." For, indeed, a number of instances of this kind are actually on record.

In the work under review it is remarked with regard to diagnosis, that—excluding reflex and hysterical paralysis—there are only three factors of paralysis, namely, embolism, thrombosis, and hæmorrhage, "with which syphilis can be confounded with other processes;" and that the onset is sudden and complete in these, whereas syphilis is slow in its working and alternately progressive and retrogressive. In actual practice, however, it seems to us that the divers ways in which syphilis can directly or indirectly cause paralysis, must also be kept in view; so, too, must the following several facts: that embolism, thrombosis, and hæmorrhage may be brought about by syphilitic disease itself, whence, perhaps, paralysis only indirectly of syphilitic origin, and due to these non-specific lesions; that syphilitic paralysis itself is sometimes sudden, and even occasionally complete, in onset, and, therefore, in this respect similar to the paralyses with which it is being contrasted; that the paralyses in various ways due to syphilomata may in no respect differ from those due to non-specific tumours and morbid growths of various kinds; that the paresies occurring in general paralysis may be precisely like some of those occurring in syphilis; while those following epileptiform seizures are often precisely the same, whether due to syphilitic or to a host of various other lesions.

An important subject is treated of in that part of the chapter on diagnosis in which outlines are carefully drawn of the groups of symptoms most usual with several syphilitic lesions; namely, gumma of the dura mater, inflammatory hyperplasia of the pia mater, and disease of the cerebral arteries. The limits of space preclude a detailed examination here of the distinctive clinical manifestations of these several lesions, or of the points as to which the experience of observers differs. A difficulty is that intra-cranial syphilis usually does not affect either the dura mater, the pia mater, or the arteries, alone; the rule being that other structures are simultaneously affected, either by the same or by separate lesions.

From a statement at p. 37, we find that the experience of Dr. Dowse as to the occurrence of syphilitic disease of the minute arteries of the pia mater, brain-cortex, and convolutions, is the same as that published some time ago in this country by several other observers, to whom, however, he makes no reference. And again, at p. 84, it appears that his pathological observations tally with the long-established scientific fact that, in the great majority of cases of brain-syphilis the membranes and the surface of the convolutions of the hemispheres are the parts attacked.

In treating of syphilitic disease of the sympathetic nervous system, the clinical histories of several interesting cases are related, but the pathology was not elucidated by any post-mortem examination. In these cases the grave lesions of the sympathetic ganglia described by Pietrow could scarcely have been present; and, in some, certain of the phenomena may be explained otherwise than by a syphilitic lesion of the sympathetic ganglia.

Syphilitic disease of peripheral nerves and neuralgias, are exemplified by two valuable cases in which the causation of the symptoms by syphilitic changes was justly inferred. In one the optic nerve and left Gasserian ganglion were apparently implicated, and in the other the sciatic nerve. And here Dr. Dowse draws attention to the important part sometimes played by the syphilitic constitutional taint in the course of, or during the extension of, disease of the nervous system due to traumatic injuries, or in the local muscular and nerve degenerations sometimes following the injuries.

Referring to syphilitic epilepsy, Dr. Dowse very justly states that there is no part of the brain which cannot of itself be the seat from which an epileptiform seizure may be generated. The *grand mal* form of epilepsy, however, he thinks is "unquestionably rare," as derived from acquired syphilis. Nevertheless, syphilitic epilepsy taking the clinical form of the *grand mal*, is by no means extremely rare, and in several such cases microscopical changes have been presented in the medulla oblongata and sympathetic ganglia similar to those occurring in the same parts in ordinary idiopathic epilepsy. Yet the great majority of the syphilitic cases are those of partial epilepsy.

The author expresses a belief that the neuroses, and various vascular and trophic affections, as ordinarily met with are, to a large extent, due to inherited syphilis, or to an inherited infirmity of nervous system in the children of syphilitic

persons. Thus he says, "I believe that most of the ailments with vascular and trophic disturbances, as megrim and other conditions which are in many cases vaguely termed hysteria, merely indicate an unstable condition of the sympathetic nervous system in persons who are essentially the offspring of syphilitised progenitors." Again:—"Believing as I do that syphilis in its hereditary form produces an unstable and defective evolution of the nervous centres to a degree far beyond any other agency, I should hold that primary idiopathic epilepsies are more due to hereditary syphilis than they are to any other cause."

But he scarcely offers us any evidence whatever to establish this view. No doubt children born to parents suffering from syphilitic nervous disease will probably inherit a more or less defective nervous organisation, and hereditary syphilis sometimes works a malign influence upon the nervous system, as upon other parts. But the suggestions occasionally made and discussed, to the effect that the nervous diseases met with in actual practice, to a large extent depend on a descent from syphilitic parents are, up to the present time, conjectural, vague and unproven. They *may* be true possibly, but it goes without saying that an unprejudiced, careful, practical, clinical investigation, and on a large scale, is much needed. Nothing less will suffice as the basis of conclusions so wide as those just referred to.

Some development and exemplification of what is said at p. 85 would have been interesting—"I have found in unstable brains and nervous systems where there has been an hereditary predisposition to neuroses and epilepsy that acquired syphilis has in the secondary stages, and for some years subsequently, actually relieved the patient from the epileptogenous tendency which, however, in the later stages of the disease, has returned with tenfold violence."

Comparing epileptoid seizures (as in syphilis) with true epilepsy, the view is held, "that in the majority of cases epileptoid seizures (whether they are or are not associated with mental defects), are due to convolucional functional irritability resulting from actual organic changes. In true epilepsy the reverse obtains, and the convolutionary functions are merely inhibited, not locally, but in most cases suddenly and completely, and the brain-cells after the check is withdrawn rapidly regain their normal functional activity."

In speaking of the affection of mental powers usual in the intervals of syphilitic epileptoid seizures, the effect of making

the patient repeat the multiplication table is described. At a certain point "memory is lost, articulation becomes a mere jumble, and we have a temporary state of aphæmia, aphasia, and agraphia—in fact, an epileptoid seizure." It is not quite clear, however, that this was an epileptoid seizure.

An interesting case is related here of nocturnal epilepsy of syphilitic origin, with unconscious automatic violence and destructiveness; and also one of sensory abortive epilepsy.

In a summary as to syphilitic epileptiform seizures (p. 93), special reference is made to the age of the patients; the existence of mental derangement between the attacks, or even of a paresis which, however, gradually passes off; the incomplete absence of the reflex processes; the presence of subconsciousness rather than profound coma, of facial pallor rather than cyanosis; the fusion and ill-defined character of the stages; the rarity of universal tonic spasm; protracted duration of some of the fits, with intervals of wandering, delirium and excitement; profuse flow of saliva rather than foaming at the mouth; and variety in the epileptic cries.

As regards pathology. There are not too many examples on record of the lesions of the nervous system occasionally found in the secondary stage of syphilis, and Dr. Dowse's report of several cases of meningitis occurring in this stage is a valuable and welcome addition to our knowledge, and goes to confirm the recorded experience of Wilks, Moxon, and others. The meningitis, mainly found at the base of the brain was, in some cases, also found over the spinal cord, and in some over the cerebral convexity. He remarks that, in most of his cases of basic cerebro-spinal meningitis, "occurring in young people, there has been a marked history of syphilis, and in its secondary stage." We have met with this at a later period, but it is scarcely necessary to add how absolutely essential it is to insist, in all like cases, that the non-existence of the tubercular form should be most satisfactorily made out.

A number of valuable examples of tertiary syphilitic brain-lesions follow, and are of interest in relation to the mental defect or disorder, the aphasia, or other important symptoms found in them, and variously grouped. The last case is termed one of general paralysis of the insane, in which the small vessels of the frontal convolutions were markedly diseased, and we are glad to find that the author concludes his book—and confirms the observations published by others several years ago—by describing the syphilitic changes in

the small vessels of the brain in certain of these cases—changes which are not atheromatous, and, again, are not the changes attending Bright's disease.

The Past in the Present: What is Civilisation? By ARTHUR MITCHELL, M.D., LL.D., F.R.S.E. Douglas. Edin., 1880.

(*Rhind Lectures on Archæology*, 1876, 1878).

When one reads books on archæology one cannot avoid an occasional suspicion that the zealous authors have now and then been drawing upon fancy, rather than making a "scientific use of the imagination." The accounts they give us of the habits of prehistoric tribes seem sometimes *too* graphic, and their knowledge of the uses to which queer looking bits of flint and bone were put by our distant ancestors rather *too* circumstantial. Dr. Arthur Mitchell has lately sounded a note of warning in our ears, lest we should be too ready to follow these archæologists too implicitly in their ingenious speculations. Probably the warning is needed, and it is, at any rate, both instructive and amusing to be told of the old clock-weight, which an archæologist is described as taking for a kind of flail used by the primeval man of the district as a weapon of defence and aggression. Whether the inferences, which Dr. Mitchell seems to imply that we ought to draw from his warnings, are warrantable, it is scarcely our place to enquire; we may leave the question to be decided by the archæologists. For it is not of the strictly antiquarian portion of the work that it is our intention to speak, but rather of the second part of the book, which deals with civilization in general, and with the mental capabilities of mankind. It is the more desirable that these lectures should be noticed in this Journal, that, though differing essentially from most modern authorities on the subject, Dr. Mitchell expresses his views with a "sweet reasonableness" that is really delightful, and, at least, brings into prominence certain aspects of the subject which are, no doubt, too often lost sight of.

One of the chief conclusions reached by Dr. Mitchell, in this able work, is that "civilization is nothing more than a complicated outcome of a war waged with Nature by man in Society, to prevent her from putting into execution in his case her law of Natural Selection. . . . And the measure of

success which attends the struggle of each band or association so engaged is the measure of the civilization it has attained." This appears to us a far-fetched conclusion, and one that makes of primary, what is only of secondary, importance. Would not the logical deduction be the reverse of what the author would wish, viz., that we should raise our civilization by causing our idiots to propagate the species, instead of exerting our efforts to check such a proceeding?

Dr. Mitchell does not believe that the human race has progressed as a whole since human beings first formed associations. On pp. 215-216, he writes thus: "Taking the whole world into view, it would seem as if there were always nations in it which are losing and nations which are gaining a high civilization, and as if the seats of culture were forever changing. That this is true of the period with which written or monumental history deals can scarcely be questioned; and if this be so, have we any right to conclude that it may not be true of all earlier periods? Are we not bound, on the contrary, to admit that what is certainly true of the later history of man in the world, is, at least, possibly true of his whole history? In such matters, do we not find that the soundest arguments are those which proceed from the known to the unknown? May it not, therefore, happen that, dealing with the human race as a whole, there never has been a time in its history when there did not occur among men states both of high and of low civilization?" This reasoning will, of course, remind everybody of the famous argument used by the Ephemeron, in the "*Vestiges of Creation*." And would it not be, at least, an equally cogent argument, and one that equally proceeds from the known to the unknown, if we were to reason in this way: all the highly civilized communities, of which we have anything like a complete history, can be traced back to states of barbarism or semi-barbarism; not only so, but the most ancient civilization with which we are acquainted, bears many traces within it of a preceding state of very inferior civilization, notably, its method of writing, and the well-known custom of employing flint knives in ecclesiastical ceremonials; if, therefore, all high civilizations, of which we know anything, give evidence of a previous ruder state, is it not probable that every high civilization is the outcome of a lower, in fact, of barbarism? It is perfectly true that the mere co-existence of barbarous societies with such as are highly civilized is not strong evidence of the growth of the latter from a state of barbarism,

but when it is discovered that the most civilized communities retain, embedded, as it were, in their existing arrangements, characteristics which are found flourishing among savage tribes, this is very strong evidence that such civilized communities have grown out of much ruder states of society, resembling, in their general aspects, some existing barbarous tribes. The reasoning is of the same nature as that by which an anatomist, finding in a certain animal the functionless relics of an organ, which he knows to exist fully developed, and to perform its appropriate functions in some other animal, concludes that the former animal is descended from an ancestor which resembled—at least with regard to the organ in question, and probably in regard to many others—the latter animal. In comparing existing with ancient communities, we cannot fail to be struck with one particular in which the former are enormously further evolved than the latter. This is to be found in the means of intercommunication between the units of which communities are made up. Means of intercommunication are a most important item in the organisation of a social aggregate—they form its very nerves and blood-vessels. Now the means which exist to-day for bringing into functional relation with each other the different parts of a civilized community—our railways, steamers, telegraphs—raise its civilization (*i.e.*, the organisation of the social aggregate, as distinguished from the capabilities of its units) far above anything in the past, so far as this particular is concerned. But it is when we compare together the results of the many different ways of studying this question, that we are most impressed by the conviction that, on the whole, there has been progress. It is by the extraordinary convergence of the evidence that so many people have been led, with Francis Galton, to the “conclusion reached at the end of each of the many independent lines of ethnological research—that the human race were utter savages in the beginning.”

But we must pass on to another question, which, as Dr. Mitchell points out, is apt to be confounded with that already alluded to. We have now to enquire, not whether evolution is the law of society as a whole, but whether the mental capacities of individual men have undergone any decided change since human beings first began to cohere together into societies. Dr. Mitchell answers the enquiry in the negative: Man’s “bodily form and structure and his mental capacity appear to continue stationary.” “The most

ancient man, of whom, as yet, we know anything, does not seem to have been inferior, either physically or intellectually, to the latest and most highly civilized, and there is no evidence that man has not been what we now see him ever since he had mental powers, prompting him to form combinations to resist the law of natural selection—and ever since his origin, if he then had those powers.” Now, just as it is possible that many buildings, differing enormously both in kind and degree of complexity, might be composed of the same number of similar bricks, so is it clear that degree of organisation in a society is not the same thing as degree of mental capacity in its units—the one cannot be measured by the other. And, therefore, even to those, who are fully convinced of the gradual growth of civilization, it becomes an interesting question, to what extent the mental characteristics of modern Europeans differ from those of primeval man. Such persons, however, cannot doubt that the growth of such a civilization as that of Europe has only been possible by corresponding changes in man’s nature, for nothing in ethnology is more certain than that the possibility of high civilization depends on the presence of suitable sentiments and powers in the individual members, but which are absent in lowly civilized tribes. But putting on one side such reasoning, which depends on the conclusion rejected by Dr. Mitchell, should we be justified in accepting those views which we have just quoted from him? There are many ways of approaching this question, and Dr. Mitchell appears to us to limit himself unnecessarily to one or two points of view. His principal reasoning is founded on a comparison of the men of the present with what we know of the men of the past. Now, in comparing the intellectual productions of ancient and of modern men, we are constantly met with a difficulty: how far are imperfections in a conception due to deficient knowledge of the needful data, how far to deficient capacity in power of generalization and abstraction? Anyone who ventures to point out imperfections in ancient conceptions can always be answered by the objection that these were simply due to the defective knowledge current at the time. It is, therefore, an exceedingly easy thing to declare, as Dr. Mitchell does, that “the master builders of the Pyramids were assuredly capable of fully receiving all the scientific knowledge possessed by Newton, Watt, Thomson, Stephenson, or any such men of modern times; while Moses, and David, and Homer, and the old Sanscrit writers have never

been excelled in literature," but such comparisons must not be allowed to go very far as arguments. The unsatisfactory nature of the comparison is further increased by the difficulty of agreeing upon a criterion of excellence. Again, it is in the very nature of things, almost impossible that literary relics of those earliest times, when men first began to record their opinions and their deeds, should have come down to us; if the relics of so relatively advanced a civilization as that of Egypt at the dawn of history, are so scanty, is it surprising that we should possess no literary or monumental remains of still earlier times, which would give evidence of much ruder intelligence in primeval *literati*? The fact is, the question of mental progress cannot be settled in this way, by merely contrasting what we know of the great men of the present with the great men of the past, interesting as such a comparison is. Happily, there is no lack of other evidence—we do not mean to help us to answer the narrower question in regard to the relative capacity of picked Ancients and picked Moderns, but to decide the broader question, whether or no all the most capable men, who have ever existed, have been the descendants of men whose capacity was in no wise superior to that of the most incapable savages, of men who cannot count beyond their digits, and whose social sentiments are far too rudimentary to allow of their cohering in large organised communities. It is not our intention to enter into any extensive defence of the one view or the other, but we venture to think that Dr. Mitchell does too much ignore the evidence for the progress theory, which has of late been put into such an attractive form by Lubbock, Tylor, and others. We doubt whether the evidence supplied by the antiquarians and anthropologists is, in its broad outlines, invalidated by the ingenious doubts cast upon their reasonings in the first six chapters of this book. The strength of the evidence is not that of a chain, the strength of its weakest link, but that of a rope which is not rendered useless because one of its many strands has snapt. The existence in advanced communities of customs, which are the relics of a state of communal marriage, and of marriage by capture or purchase, has a meaning which does not seem to us to be weakened in force by Dr. Mitchell's criticisms, and would appear to point back to a state of things indicating, not only a low civilization of the aggregate, but a low capacity in its members.

When Dr. Mitchell concludes that "if the lowest savages,

known to us in the world at present, are either probably or possibly in a state of degradation, they cannot safely be held as furnishing us with correct conceptions of the condition of the so-called primeval man," he appears to us to have overlooked the chief reason in favour of so holding them—not in details, of course, but in the general character of their mental processes. The reason is precisely the same as that for which an embryologist concludes that the ancestors of a given animal resembled, in certain respects, some creature very different from the one he is examining, because he finds that the latter passes through stages of development in which it resembles for the time such a creature. In the same way, we find that the ablest men pass through an infancy and childhood in which their mental capabilities closely resemble, in their general features, the mental capabilities of the humblest savage. The savage and the child are alike tied down to the concrete, or, at least, can get very little way into the abstract. The savage and the child are alike changeable and impulsive, easily elated, easily depressed. Such an analogy can hardly fail to strike the psychologist, as a similar analogy strikes the student of embryology, and urge him to the conclusion, for which his knowledge of the animal world in general has prepared him, that the great ones of humanity have been the descendants of beings whose mental capacity is not incorrectly represented in the minds of the most incapable savages known to us. Again, the generally admitted fact, that the intelligence of women is inferior, on an average, to that of men, that, in fact, a woman's intelligence is more like that of a child, or a savage, than a man's is (speaking, of course, of averages), and the further fact, that this difference is most marked in the civilized races, is another proof of our descent from savages, because such results would naturally follow on the development theory, from the stimulating influence which sexual selection and the more active life of men would have had upon the male intelligence.

Dr. Mitchell is very sarcastic on the civilized warfare of the present day, and we freely admit with him that the horrors of actual fighting are not diminished by the substitution of rifles and torpedoes for stone axes and bronze swords, and that such substitution is no evidence of a diminution in warlike tendency or a growth of sympathy. But we cannot help regarding an institution, like that of the Red Cross, as some sign of the latter, while we should be more

prepared to believe that there has been no diminution in warlike tendency and predatory activities since the time of the Egyptian empire, if Dr. Mitchell could prove to us the existence of a Peace Society in Thebes, while Ramses the Great was marauding in the territories of his Asiatic neighbours. We are not among those who take a very exalted view of the intelligence and moral sentiments, even of our educated classes, but we cannot help thinking that there is some improvement in the public moral sense, when we compare modern England with ancient Egypt. It is true that in moments of excitement or panic, horrible deeds are still perpetrated in the name of England, but surely our public conscience would be somewhat shocked were we to set up in one of our Cathedral windows a symbolic representation of the Queen hanging Afghan prisoners, or flogging negro women in Jamaica. Yet a similar symbolic representation of the Egyptian King is one of the commonest sculptures on Egyptian temples.

We have dwelt rather upon what we consider the vulnerable points in Dr. Mitchell's lectures, but we must say in conclusion that we welcome the book as full of ingenious suggestions, and as re-calling those aspects of the question, which are rather apt to be lost sight of now-a-days in the rush of evolutionary thought. The Association has reason to be proud of a member who, to his wide knowledge of the subjects falling under his special branch of medicine, adds those of the ethnologist and antiquary.

W. S. T.

Congrès International de Médecine Mentale. Comptes Rendus Sténographiques. Paris, 1880.

(Concluded from page 597).

Mental and Nervous Pathology

1. Clinical varieties of General Paralysis, by Dr. Falret.
2. General Paralysis, with symptoms of circular insanity (*à double forme*), by Dr. E. de Lemaëstre.
3. Clinical varieties of General Paralysis, Dr. Daniel Brunet.
4. On the frequency and effects of cerebral congestion among the insane, by Dr. Mordret.
5. Statistical researches on the modifications of the pupillary orifice in General Paralysis, by Dr. Doutrebente.

6. Study on the temperature of the surface of the head in the insane, by Dr. A. Voisin.

7. Researches on the pathological anatomy of the blood in insanity, by Dr. Gallopain.

8. Considerations on paralytic dementia as one of the terminations of insanity, by Dr. Girard de Cailleux.

9. Anatomico-pathological researches on Idiocy, by Professor Mierzejewski.

Legal Medecine.

10. On instantaneous transitory insanity (*Délire par accès*) in its relation to the medical jurisprudence of the insane, by Professor Lasègue.

11. On Larvated Epilepsy, by Dr. Christian.

12. Clinical considerations on Epileptic Insanity, by Dr. M. G. Echeverria.

13. On Partial Responsibility of the Insane, by Dr. Lagardelle.

14. On the Patronage of the Insane, by Dr. Brosius.

15. On Article 29 of the Law of June 30, 1838, by Dr. Rouby.

16. Essay on Normal and Pathological Physiology of the encephalon, by Dr. Ed. Fournié.

17. On Psychological or moral Heredity, by Dr. Fournet.

We cannot dwell at length on the interesting communications on General Paralysis made at the Congress, and which did not point out any new facts concerning the disease. Dr. Falret, after establishing that general paralysis usually exhibits a longer duration, when allied to hereditary influences, admits the following division:—1. Progressive general paralysis without insanity. 2. Congestive variety. 3. Epileptic variety. 4. Melancholic variety. 5. Congestive mania. Notwithstanding our agreement as to the unity of general paralysis, we are led to recognise in it, according to Dr. Falret, if not a large group of cerebral affections composed of several morbid species, at any rate a disease displaying important clinical distinctions or varieties of the same kind, unless we rather admit new morbid species belonging to a more extensive genus. Dr. Brunet, viewing general paralysis as chronic pericerebritis, divides it into four forms. 1. *Maniacal* form with general excitement and incoherence. 2. The *ambitious* form with partial exaltation. 3. The melancholic form with partial melancholy alienation, and 4, the *demented* form, in which the intelligence is lessened without any excitement.

The variety of general paralysis described by Dr. Lemaître, corresponds to that form which has been long ago pointed out by Renandin, Lunier, and others.

Dr. Doutrebente holds that the inequality of the pupils in general paralysis originates in the action of the sympathetic upon a state of congestion or sclerosis of the brain. Chronic irritation at the origin of the third nerve (irido-constrictor) superinduces a functional increased activity, beyond control of the sympathetic (irido-dilator), with consequent exaggerated contraction of the pupils; and, under such circumstances, the effects of belladonna are considerably lessened.

Out of 95 paretics only 9, or 9·47 per cent., appeared always free from any abnormal change in their pupils, the following being the definite results arrived at by Dr. Doutrebente's repeated researches :—

70 inequalities of the pupils	}	more dilated on the left side	46
		" " on the right	17
		unequal at the beginning in patients	
		now in a state of remission	7
12 with exaggerated contraction of 0 ^m 001, or less.			12
4 abnormal dilatation from 0 ^m 005 to 0 ^m 0093.			4
9 Normal State.....	}	Apoplectic dementia	3
		Locomotor ataxy	1
		General chorea	1
		General Paralysis	4
95		Total,	95

Leaving out five cases improperly included as paretics in the last series, we find that only four out of 90 paretics remained free from abnormal changes in the pupils, which proves the diagnostic value attached to this symptom.

Dr. Voisin asserts that the temperature of the head fluctuates according to the morbid processes developed in the brain, the knowledge of such a cerebral hyperthermia leading us to the successful treatment of mental disorders by the timely application of powerful revulsives (blisters, cauteries) to the head. To facilitate the application of this method without error, Dr. Voisin has had a very sensitive small thermometer constructed, which can be easily applied to the scalp, and the points of the skull on which he makes his investigations are the following :—The middle of the forehead, behind the ears, over the bregma, over the iniac point (superior occipital process), and over the temples.

The recent researches of F. Franck, however, seem to confirm, as already concluded by Lombard, that the temperature

in the outer surface of the head does not represent in kind or in degree the relative temperature of the underlying parts of the cerebral tissue. Consequently, we must see this important subject more elucidated before we can admit, without reserve, the real value of cerebral thermometry, of which Dr. Voisin speaks with great faith.

The interesting investigations of Dr. Gallopain are chiefly directed to ascertain the amount of red and white corpuscles, and of hæmoglobine in the blood, in acute and chronic mania, hypomania, general paralysis, dementia, epilepsy and idiocy. A series of comparative estimates by the hæmatimetric and chromometric method employed by Hayem has led Dr. Gallopain to the following conclusions:—

“In the insane: 1. The number of red blood corpuscles is diminished. 2. The number of white blood corpuscles is increased. Anæmia of moderate intensity exists in almost every case. From these facts the following therapeutic consequences are deducted. Danger with consequent absolute banishment of *general* bleeding in insanity. We italicise *general* as we do not cease to resort to local bleeding, which answers, in certain instances, to pressing indications.”

“Banishment of artificial suppuration (seton, cauteries, &c.), since the most clear immediate effect of suppuration is to determine a more or less abundant leucocytosis, it being, therefore, at least, useless to augment the already increased amount of white blood corpuscles in the insane.”

“Never to overlook the fact that the insane being at the same time always anæmic, tonics should rank foremost in the treatment of insanity.”

We pass over the important researches of Professor Mierzejewski on idiocy, which have appeared in this Journal before.

The communication of Professor Lesègue on Sudden Transitory Insanity has been the subject of an interesting analysis by Dr. A. Motet. We would only remark that the practice of English alienists has been generally guided by the fundamental principles laid down by Professor Lasègue, whose assertions are advanced in a most trenchant manner. His views on the malformation of the face and head in reference to epilepsy have been, long ago, more systematically and fully set forth in the ethnic classification of idiots, by Dr. Langdon Down, which seems to have escaped the notice of Dr. Lasègue.

Dr. Christian in his communication on larvated epilepsy

arrived at the following conclusions:—"It has not as yet been demonstrated that there is a mental epilepsy capable of replacing the convulsive. Epilepsy, under its different manifestations, is always one and identical to itself, it ever needing to be characterized by the existence of the *epileptic fit* or *ictus*, either complete or incomplete. No insanity could be regarded as epileptic unless it had exploded as an epiphenomenon of the fit. Larvated epilepsy does not exist, it always being *mistaken* epilepsy. Although it is legitimate to acknowledge that several cases of instantaneous transitory insanity ought to be referred to epilepsy, the proposition could not be, however, accepted as general. At all events, prior to it, the existence of the convulsive fit should be established."

The principal conclusions arrived at by Dr. Christian confirm those distinctly established by Dr. Echeverria in his communication on Epileptic Insanity, read in 1873 before the Association of Superintendents of American Lunatic Asylums, and which has been, with slight additions, also presented to the Congress in Paris.

Dr. Echeverria does not, however, deny the existence of mental epilepsy, but, on the contrary, demonstrates its reality as one of the manifestations of the epileptic malady. The main elements for the existence of epilepsy are unconsciousness, convulsions, and mental disturbance. These fundamental phenomena do not appear with invariable distinctness, inasmuch as one or more of them may acquire such a prominence as to impart its specific character to the paroxysm. In every case, however, unconsciousness displays itself more or less conspicuously, and is, therefore, according to Dr. Echeverria, the principal exponent of the epileptic malady.

Epileptic insanity is classified under intermittent, remittent, and continuous, the first variety being characterised by fits exploding after intervals of more or less regular periods of sanity; the second by imperfect restoration of mental health between the paroxysms; and the third by persistent mental disorder not changed by the fits. It is not rare for intermittent epilepsy to reach its last stages without any conspicuous spasmodic symptoms. This form corresponds to the larvated epilepsy of Morel and Falret, but does not end always in ordinary convulsive fits as held by the former, for many often die of cerebral congestion with profound coma. But, in every instance, it will be possible to detect, in addition to the

epileptic pupil, slight twitchings and local convulsions, or sudden jerks of the limbs in proof of the convulsive element of the mental attack.

Dr. Echeverria enters into a careful and original study of unconsciousness illustrated by examples of great practical medico-legal importance. The limits of this review do not allow us to refer to them, nor to the description of the symptoms of the epileptic insane, the most striking of which is the *epileptic echo*, or repetition of words and phrases by the patient. Finally, Dr. Echeverria does not acknowledge the medico-legal value ascribed to the bromide of potassium by Legrand du Saulle, who proclaims it the "touchstone" of epilepsy, for the exhibition of the salt has induced, in various epileptics under Dr. Echeverria's care, maniacal or melancholic derangement sometimes of a homicidal or suicidal nature, instead of the diminution of their fits.

Dr. Lagardelle declares himself a partisan of a mixed doctrine between that of absolute irresponsibility and that of partial responsibility, and which may be thus *résumé*: 1. Irresponsibility in the majority of cases with a state of mental alienation at the moment of the act. 2. Complete responsibility for acts perpetrated under determined circumstances of completely lucid intervals; epileptics, alcoholism, impulsive insanity, intermittent insanity. 3. Attenuated responsibility in cases in which there is a simple weakening of the free-will: weak-minded, imbeciles, alcoholics, intermittent insane.

The great difficulty and consequent danger attached to the mixed theory advocated by Dr. Lagardelle is the impossibility to determine positively the influence which the malady might have had in the production of the criminal deed, in cases falling under the second and third categories.

Dr. Brosius asked, in warm terms, the encouragement of the Congress for the Societies of patronage for the Insane.

Dr. Rouby, in order to demonstrate the shortcomings of the Article 29 of the Law of June, 1839, relates four cases, in which the Judges were mistaken in their decision, attended with the most serious consequences. To avoid this evil, Dr. Rouby suggests that such decisions should be rendered by the President of the Court and two alienist physicians not connected with the establishment where the lunatic is placed, instead of by the President and two Judges of the Court.

Dr. Fournié regards the brain as composed of three essential

parts reciprocally acting on one another and individually contributing to the same end. These parts are: 1. The optic lobes, which give rise to sensations, either actual or remembered, of every kind. 2. The cells in the superficial layer of the cortex which retain, under the form of possible movements, the property of awakening determined sensations in the optic lobes, and thus represent the organic conditions for memory and knowledge. 3. The cells in the deep layers of the cortex, which excite the motor fibres converging towards the cells in the corpora striata. The simplest functional operation of the brain requires the concurrence of these three parts, and whenever one is at fault the mechanism becomes deeply deranged or suspended.

The abnormal operation of these parts is characterised by either an increase, a lessening, or a loss of the physiological properties of the elements, superinduced by either a derangement of circulation, or the injurious presence of homeomorphous or heteromorphous products, or a traumatic action, or, lastly, by some specific modification in the life of the elements.

No cerebral act being possible without the participation of the three fundamental phenomena of sensation, memory, and motory excitement, it follows that the disturbance of any of these phenomena determines that of the others and of the whole cerebral mechanism. Since no fundamental phenomenon constitutes separately a complete function, its isolated derangement cannot constitute a distinct malady; consequently, hallucinations, amnesia, paresis, paralysis, are met, in different degrees, with every disease described by alienists. And hence the neurological principle admissible in mental pathology is to establish morbid species according to the absence or presence, or to the association, successive order, or predominance of the fundamental phenomena constituting the function of intelligence.

Without entering into all the philosophical views of Dr. Fournet on Moral Heredity, we may briefly point out that he ascribes to organic heredity the transmission of the animal feelings and impulsive tendencies; and to moral heredity the power to judge, to control, and to direct them.

Finally the proceedings of the International Congress close with an appendix of the translation, by M. Michel Möring, of that part in the valuable report of Dr. Manning referring to special asylums for insane criminals.

Animal Magnetism: Physiological Observations. By RUDOLF HEIDENHAIN, M.D., Professor of Physiology in the University of Breslau. Translated by L. C. Wooldridge, B.Sc. With a Preface by G. J. Romanes, M.A., F.R.S. C. Kegan Paul and Co., London.

As Braid took up the study of the phenomena which bear his name from the demonstration given in Manchester by Lafontaine, and Elliotson did the same from the accident of M. Dupotet, appearing in London, so Heidenhain first interested himself in the phenomena described in this little book by the visit to Breslau of M. Hassen, a Dane, who exhibited in public.

The book will mark a period in the history of hypnotism, as it has had the effect of reviving the consideration of the subject on the part of men of science, and ought to be read by every one caring to study it.

We have already referred to it in the last number of the Journal (p. 532), and do so again in order to supply an oversight—the mention, namely, of the title of the book and the publisher.

Etude Scientifique sur le Somnambulisme, &c. Par le Dr. PROSPER DESPINE. Paris. 1880.

The author of this work is well known by his psychological writings—"Psychologie Naturelle," "De la Folie au point de vue Philosophique," &c. The present publication received the Aubanel Prize awarded by the Medico-Psychological Society of Paris in 1879, and is a valuable contribution to the literature of somnambulism. Dr. Despine is an exponent of the doctrine of reflex action of the cerebrum enunciated by Laycock, although he differs from him in making it essential that the act performed must be completely outside, and independent of the *moi*. The absence of the ego or the consciousness is a *sine quâ non*. Still he does, as regards the latter, point out himself how possible it is for a person to speak automatically and ego-less while he is distinctly conscious that he is doing so. M. Despine points out that in his "Psychologie Naturelle," published in 1867, although at that time ignorant of the doctrines of Laycock or Carpenter, he attributed the state of somnambulism exclusively to organic automatism, explaining the subject's unconscious-

ness of what passes, not to forgetfulness, but to the non-participation of the *moi* in the acts performed in this condition. To this presentation of the subject the author adheres in 1880.

M. Despine has produced a valuable work, one meriting the prize awarded to it by the Medico-Psychological Society of Paris. It is one of the many proofs that this subject has succeeded in obtaining the intelligent consideration of psychologists. It teaches also a moral. It might never have been written had not two obscure Irish girls lived and been hysterically sensitive. Our author's interest in somnambulism dates from the time when he witnessed their performances under Elliotson, more than 40 years ago. It pleased some to assert that they were only impostors, and they fancied they had extinguished them. It was much less trouble to laugh than to consider seriously and in a scientific spirit whether this very facile solution of all difficulties which arise in hysterical persons was the correct one. Fortunately, there were two young men at that period who failed to see that there was anything to laugh at, and, independently of one another, turned the facts to account. These were Laycock, who in consequence was led to a course of study and research which produced works and a doctrine familiar to all; and Despine, whose essay we have brought under the notice of our readers.

The author has much to say on automatism; he examines the condition of persons under the influence of anæsthetics. He then compares it with that of somnambulism, which he then describes in its natural spontaneous form. He discusses the relationship it bears to natural sleep. He then passes on to artificial somnambulism or hypnotism. The phenomena are described as they are determined by the various senses in a state of hyperæsthesia; or in their paralysis. The intellectual and moral phenomena of somnambulists are described. In the next place the therapeutic value of hypnotism is considered in nervous affections and as an anæsthetic.

Dr. Despine considers separately the somnambulism and cerebral automatism produced by epilepsy, by hysteria, by fevers of various kinds, and by mania, &c. Chapters on mystic ecstasy and the somnambulism of Socrates close the work. We are not prepared to say that the possible, the probable, and the certain are distinguished with sufficient care; where alleged facts are contrary to ordinary experience, they require unquestionably a proportionately greater amount

of proof. In these cases a minute and elaborate description of the precautions taken to prevent error should have been given. For the rest we repeat that this treatise, written by an honorary member of the Association, is a valuable contribution to this portion of medical psychology.

A Moveable Atlas, showing the Structure and Functions of the Brain, &c. By Professor G. J. WITKOWSKI, M.D.
Baillière, Tindall and Co., London.

This atlas, the text accompanying which is translated by Dr. Dowse, is the sixth of a series intended to illustrate Human Anatomy and Physiology. It is very carefully and ingeniously executed, and will prove serviceable for reference. Its superiority over a mere plate is evident, as the parts are movable, and are easily separated layer by layer.

The Science and Practice of Medicine. By WM. AITKEN, M.D.,
F.R.S. 7th Edit. 2 vols. Charles Griffin and Co. 1880.

This edition is correctly stated on the title page to have been to a large extent re-written, enlarged, remodelled, and carefully revised throughout. Dr. Aitken has spared no pains to bring up the work to the present level of knowledge. We do not point out to his discredit, but as a singular illustration of the line drawn between the diseases of women and men, that the practitioner would look in vain in these massive tomes for any help in such common affections as amenorrhœa and menorrhagia. The uterus is not to be found in the index, while ample justice is done to the spleen. Dr. Wilson Fox once observed at the College of Physicians, when professors of midwifery were contending for the due recognition of their craft in the examinations, that it was important to bear in mind that "woman is not all womb;" but the course pursued by works which, like that before us, are designed to be "a faithful Representative of the Medical Science and Practice of the day," may be in some danger of inducing us to forget that woman has any womb at all. But we are travelling out of our record. It is satisfactory, however, to know that mental are regarded as so much more important than uterine disorders, that they occupy a considerable number of pages. On a former occasion this Journal has noticed favourably the

way in which this section is treated; the revision has extended to this chapter, and has been, on the whole, judiciously executed.

We were not aware, however, that in the early stage of general paralysis there is a difference of 7° Fahr. between the morning and evening temperature. (Vol. ii., p. 350).

In so large a work mistakes in the spelling of proper names are almost inevitable. Dr. Aitken is, however, rather hard on Dr. Burq, for he is not considered to have suffered sufficiently in having been quietly locked up in a seclusion room for many years, but when allowed to come out, his name is uniformly changed into Burg. We must hope that M. Burq is not like Goëthe, who was very sensitive on this point, and said that when people took liberties with one's name, it was as bad as taking liberties with oneself. On metalloscopy itself, Dr. Aitken, either speaking himself or quoting Dr. Carpenter (it is impossible to tell which), makes a somewhat sweeping charge against Charcot, when he says, "This potent source of error (effect of attention on bodily organs) has been quite ignored in the clinical experiments and observations of Professor Charcot and others in the effects of magnetics, bobbins, buttons, mustard leaves, and metals on hystero-epileptic patients." Surely nothing can justify such a statement but personal observation at the Salpêtrière, and neither Dr. Aitken nor Dr. Carpenter appear to have themselves ever seen any experiments at the Salpêtrière or elsewhere. Dr. Stone's remarkable case at St. Thomas's is worth more than any amount of dogmatic scepticism.

In conclusion, we cordially commend this work—in spite of a few trivial blemishes—as a laborious text-book of Medicine.

The German-English Dictionary of Words and Terms used in Medicine and its Cognate Sciences. By FANCOURT BARNES, M.D., Aberd., M.R.C.P. London: H. K. Lewis. 1881.

The want of such a dictionary has long been felt. Dr. Barnes acknowledges his indebtedness to previous dictionaries, including "Cutler's Dictionary of German Medical Words," which recently appeared in America. The possessor of the present work obtains, therefore, the great advantage of having in one volume what he would have to search for in many, with the addition of other words which have been

omitted in all. We hope this attempt to meet an important desideratum will be encouraged as it deserves. We would suggest that in a future edition, which no doubt will be called for, the meaning of some terms should be given in a little more detail. Thus under "Verrücktheit" it would be essential the translator of a work on Medical Psychology should find more help than he would derive from the definition "Madness, Insanity." No mention is made of "Primäre Verrücktheit," or "Secundäre Verrücktheit," terms so puzzling to the reader of German psychology. "Narr" and "Narrheit" are omitted, and, therefore, the modification of meaning which has occurred in the use of these words. "Zwangsvorstellung" is rendered "idea or notion of compulsion, or of being constrained," but the patient who suffers from this form of insanity is not necessarily possessed of the idea that he is compelled or constrained. It is implied by the term, as used by German psychologists, that he is the subject of involuntary ideas or thoughts—an obsession. "Blödsinn" is not translated so as to help the translator to understand its relation to dementia, nor are "angeborener Blödsinn" and "erworbener Blödsinn" introduced.

No doubt, as is inevitable, this dictionary admits of additions and the introduction of finer shades of meaning, but this fact does not prevent our commendation of the labour expended by Dr. Barnes upon it.

PART III.—PSYCHOLOGICAL RETROSPECT.

1. *English Retrospect.*

Asylum Reports for 1879.

It is the habit of some to talk of this annual notice of the reports as a review. It in no way deserves such a title, for it is simply a notice, and is intended to rescue from oblivion any fact or statement which may interest or instruct the readers of the *Journal*. For obvious reasons it is not desirable that any very severe literary or other test be applied to these publications. Most of the writers are members of this society, and would not like, supposing they are but ordinary mortals, that their annual effort in composition should be roughly handled in a journal which they help to maintain. Besides, most superintendents are compelled to write a report, whether they feel able for it or not, and their consent is not asked for its publication; they

therefore appear year by year as authors against their will. They are consequently entitled to every consideration, and their position is quite different from that of the man who writes a book or even ventures on recording a case.

Taking the reports as a whole, they are very much like those which have appeared in former years. A large proportion of them are simply statistics tacked together by a few very simple remarks. Some of the writers having written such reports for a number of years, are obviously like the Irish Commissioners, who are honest and make no secret of their unhappy plight, very badly off for a new method of turning their sentences, and thus giving their work a new face, though in substance it remains the same. Elaborate reports are almost extinct—a decided step in the right direction. The pains expended on them were really wasted, and can now be devoted to more profitable employment. Medical details have disappeared, and committees are now seldom asked to listen to long accounts of accidents, curious cases, and the like.

It is obvious that in Scotland the "open door" system continues to gain ground, and that it is now one of the most important questions in asylum administration. English superintendents are afraid to try it; and their visitors and commissioners look with severity on suicides and accidents. It might, however, be tried experimentally in say two English asylums. If it succeeded in one of the Lancashire and Yorkshire asylums, it might be universally adopted. In the meantime it would be necessary to explain to coroners and their juries that the new system is only a trial, and like all new things, not quite in working order at once; and that therefore a few murders and suicides must not cause uneasiness about the ultimate success of the proper system of asylum management.

Argyll and Bute.—Here a difficulty is successfully overcome by employing male private patients in active out-door work. As the consent of the relatives is obtained to this arrangement, it might be adopted with advantage in other institutions, for nothing strikes a visitor so much as the listless idleness of most private patients. It may not appear very dignified for a melancholic baronet or a demented member of parliament to be delving in a garden, or planting out cabbages, but he could not be better employed.

A very evident error has appeared for at least two years in Table 3. In 1868 the number of deaths is given as 9, the average number resident 135, and the percentage of deaths 15. In 1869 the numbers are respectively 20, 143, and 6. There may be other mistakes, it is not necessary to look for them, but this is a good illustration of the fact that no man should use asylum statistics for scientific purposes without having proved their correctness.

Ayr.—The average number of male patients resident was 122, but the staff of attendants was only five, one of whom acted as messenger.

The absence of locks seems to have led to disagreeable consequences in the case of a female patient, about whom the Visiting Commissioner, Dr. Mitchell, made a special enquiry. When it is remembered that even sane people will abuse their privileges and opportunities, we need not be surprised that lunatics and imbeciles experience some difficulty in restraining their appetites. No doubt this is one of the most disagreeable consequences of the "open-door" system.

One of the female admissions was an interesting case. Of her Dr. Skae says:—"Among the admissions may be mentioned one woman who had been indicted at the Circuit Court of Justiciary, held at Glasgow, in December, 1867, for the murder of her child; but insanity having been pleaded in bar of trial, she was committed to the general prison at Perth, where she remained until February, 1873, when, having apparently recovered her sanity, she was liberated by a warrant of the Home Secretary, on condition that she resided with her sister in Kilmarnock. This she did, and appears to have continued quite well until the end of March, 1879, when symptoms of insanity again exhibited themselves. She was at once sent here under a sheriff's warrant, and within a week of the date of her admission was recommitted by an order of the Home Secretary to the general prison. During her short stay in this asylum her insanity chiefly exhibited itself in a strong homicidal propensity, with great excitement and violence; but at times she was quiet, and occasionally melancholy, and often referred to her crime with expressions of deep remorse. Even in her calmer moods, however, she could not be trusted, owing to the suddenness of her dangerous and violent impulses, over which she seemed to have no control whatever. She was also exceedingly cunning, and would appear to be most amiable and gentle to the attendants, to whom she might be talking, when in a moment, and without the slightest warning, she would kick at the belly of one, seize another by the throat or the hair of the head, and try to gouge out the eyes of a third. On these occasions she would say she did not care what she did, as she could not be punished. Hers was a case of puerperal insanity. She had been sent to the Glasgow Asylum as a private patient, from which she was removed by her husband before she was completely recovered, and strongly against the advice of the Medical Superintendent. She very soon relapsed, became deeply melancholic, and evinced a strong suicidal tendency, for which she had to be carefully watched. She, however, poisoned her child with laudanum, and attempted to take away her own life by the same means."

Barony.—Dr. Rutherford reports—"Mainly through fully occupying the patients, and thereby counteracting the tendency to manifestation of their insane ideas, it has been found practicable to carry out the open-door system of treatment. All the doors in the Asylum open with ordinary handles, and only the chief attendants are in pos-

session of a key. I am not aware that this system is so fully carried out in any other large public asylum. No untoward event has yet occurred to lead me to change my opinion, that by the diminution of apparent restrictions upon liberty, greater quietness and contentment are secured, which has its effect in promoting recovery and improvement. This is the first asylum that has yet been erected without walled airing courts, and the want of them has never been felt to be a disadvantage. From the experience gained here, it is unlikely that any asylum will now be built in Scotland with those formerly considered necessary adjuncts."

It cannot be denied that this is a most important statement, making all due allowance for pardonable enthusiasm. Such a method of management is evidently compatible with thorough discipline, for Dr. Mitchell says—"The recent burning of one of the towers scarcely affected the appearance of any part of the house, and in no way interfered with the usual daily life of the inmates. It is very creditable to the management that, even when the fire was at its height, the wants of the patients received their customary attention, and perfect tranquillity was maintained. No confusion occurred in any part of the establishment, and neither patient nor attendant received any injury. The importance of possessing a trained and regularly-exercised fire-brigade, was made very apparent. By their exertions the spreading of the fire was prevented."

According to the ideas of the Scotch Board, this is a model asylum, for the same Commissioner continues—"It is recorded with satisfaction that the Asylum does more than merely maintain its high character. In various directions there is evidence of a healthy progress, and a thoughtful and energetic management. There are few asylums of which such things can be said as those which appear in this entry."

For a Scotch asylum the weekly charge is high.

Berks.—Though open only about 10 years, the Asylum is unable to accommodate the lunatics of the district, who are boarded out until the necessary enlargements make their reception possible. The buildings are nearly complete, but their erection has made the management unusually difficult, as might have been expected. Dr. Gilland's report is highly satisfactory, though we would venture to suggest that the following sentence might have been omitted. It refers to a detail of medical work which need not be brought under the notice of county magistrates:—"The stomach-pump was consequently brought into requisition 356 times during the year in the treatment of those 21 patients, the majority of whom had only to be thus fed but a few times; but one female was thus operated on 43 times, and one male 79 times."

Bethlem.—To be a medical officer in this Asylum is to enjoy perhaps the most desirable post in England. The opportunities for work, teaching, self-improvement are so great that most county asylum men are left hopelessly behind. With only the barest comment we excise the following paragraphs from Dr. Savage's report, to show what he

is doing to utilize his great advantages for the benefit of his patients and of the profession generally.

Regarding the hospital, he says—"The function of Bethlem is not only to receive the cases that are suitable, but to advise friends of patients what to do with those who have developed signs of insanity, and it will be seen that many hundreds every year apply to the officers for advice and assistance. By this means a large number of cases come before the medical officers, and hitherto the cases were disposed of and no record kept, but now we hope to gain useful information about insanity by collecting the chief facts in each case that presents itself.

"No more important duty rests on Bethlem than the free advice given to such cases, and I hope that some day a definite out-door department, for persons suffering from nervous diseases, may be established there. Mental disease is so intimately connected with other general diseases, that my endeavour has always been, and still is, to encourage other practising physicians to visit the wards of the hospital. In this I have in part succeeded, and occasional visits have been made, both to the advantage of the patients and myself. If anything is to make mental disease better understood, and more early and satisfactorily treated, it must be in the removal of secrecy in asylums. If the asylum is visited by strangers intelligent and kind-hearted, abuses cannot exist, and the patients feel themselves still part of an active moving world."

A pathological laboratory has been established, where histology of the nervous tissues more especially is followed, and it is expected that this will in time prove a powerful influence both in treatment of patients and the advancement of science. Dr. Savage is strongly in favour of clinical clerks; his experience of them has been thoroughly satisfactory. He repeats that the presence of students in the wards in no way injures the patient, but keeps the medical officer actively alive to the requirements of advancing science.

"The system of granting leave of absence is, in my mind, of great benefit, giving confidence to friends, who will receive a relation much more readily when they know any relapse only needs the return of the patient without any further trouble; this fact also acts as a check on the patient, and helps to self-control. During the year 212 leaves of absence from one night to one month have been granted, not all to separate patients, as many have had extensions of leave, and others have had to be tried on leave several times before we were satisfied that they were fit for home. Some other cases, though chronically insane, have been able to spend periods of quiet with their friends. All such mixing of insane with the sane is to be encouraged, leading in many cases to cure of insanity, and in most to a more just knowledge of the disease by the uninstructed."

The following remarks on employment are worthy of attention. Where out-door work cannot be obtained, *daily* drill and gymnastics may be the best alternative. "The greatest difficulty in a hospital

like this is to find occupation for the men; the women can work with their needles, play the piano, draw and be content; men, on the other hand, roam hopelessly about the galleries or airing-courts, often smoking more than is good for them, and fretting at the enforced idleness; they cannot dig, and are not fit for mental labour. Rest is an essential in most cases of mental disease, but ennui is not rest; yearly I regret to see cases drift into chronic insanity because I cannot find employment that will stem the tide; a patient comes to lead a more and more subjective life, a life that fosters the morbid growth of hallucinations and illusions. I do not believe, on the other hand, of trying every moment in the life of an insane patient to teach and lecture him, either on natural science or self-control. . . . What is needed is the daily influence of some employment. I propose to try drilling and gymnastics this year."

As nurses, young active women of the lower middle class are preferred, and the proposal to have lady nurses is not favourably entertained.

It is recorded that a patient admitted in 1844 was discharged recovered in 1879. Such an event cannot fail to suggest many uneasy thoughts as to the treatment of so-called incurable lunatics. It should also teach great caution in vaunting the triumphs of the medical treatment of insanity.

Birmingham.—It may be useful to point out that Dr. Green uses the term "readmitted during the year," in a sense different from what it usually carries. In Table 1 the figures are—Admitted first time during the year, 116, 120; readmitted during the year, 1, 4. In his report, however, he states that "5 were readmissions, and besides these 42 have been in the asylum at some former period." Under the denomination "readmitted during the year" should be placed all patients who have at any former time been in the asylum. This is the usual and correct method.

Bristol.—Mr. Thompson directs attention to a great evil, against which it would be well if our Association remonstrated, and took steps to remove—the passing of patients through workhouses on their way to the asylum. He says—"Nearly one-half of the patients admitted passed through one or other of the workhouses, having been detained there for some time previous to admission. From these cases one hardly looks for many recoveries."

He very rightly brought under the notice of the Secretary of State the case of a man discharged from prison in a hopeless state of dementia. His illness began during his confinement, and it was properly pointed out that if he had been removed to Broadmoor, and subjected to skilled treatment, he might have recovered.

Cambridge.—The perusal of the Committee's report to Quarter Sessions makes the reader thankful that he is not their servant. A most minute interest appears to be taken in the affairs of the asylum; the most trivial matters come under the notice of the Committee, and are referred to sub-committees; but in one respect at least the result

is not creditable to the magisterial management—the average weekly cost for 1879 was 11s. 4 $\frac{3}{4}$ d. For years those familiar with asylum administration have laughed at the perversity of the Cambridgeshire visitors; and the present report proves that they do deserve some of the hard things that have been said about them.

The asylum has long required enlargement. Instead of making the additions as speedily as possible, the visitors, with, we might suppose, the express intention of increasing the cost and inconvenience, decided to spread the work over a number of years, and this they have done in spite of the remonstrances of the Lunacy Commissioners.

In objecting to four patients having been admitted, the visitors caution all parish authorities and justices of the peace not to authorise the admission of patients unless they are wandering at large, or are paupers legally chargeable to some union in the county, &c. “Irregular admissions create much inconvenience.” To whom? It is decidedly objectionable—and we are astonished that county gentlemen could do such a thing—that the names of the patients, to whose admission objection is made, are printed in full. A general statement, or initials at most, would have answered all purposes.

The Committee suggested that the Commissioners should communicate with the chairman as to the date of their intended visit. This the Commissioners very properly declined to do, as thereby one of the objects of visitation would be defeated.

The Commissioners point out that of a total of 29 nurses and attendants, 12 have been in the asylum service less than 12 months and 6 between one and two years.

Cardmarthen.—Dr. Hearder recommends that the practice of sending criminal lunatics to county asylums should be amended as follows:—(1) Criminals becoming insane should not be sent into county asylums. (2) Insane criminals who, after conviction, are sent for treatment to the special asylum at Broadmoor, should not, on the expiration of their sentence, be transferred to county asylums. If special care is required during the period of their sentence, it is surely unreasonable to act as if the particular need ended with the conclusion of the penal term. (3) The insane who, through neglect, are allowed unlimited freedom of action, and commit some breach of the law as the result of their diseased state, ought not to be regarded as members of the criminal class, and should not be sent to the Criminal Lunatic Asylum.

On the vexed subject of wine and spirits in disease Dr. Hearder has very strong views; indeed, views with which the majority of the profession do not agree. We reproduce them, however, and they may be accepted for what they are worth. As to the use of beer in ordinary diet, we do not hesitate to say that we agree that it is, as a rule, quite unnecessary in county asylums. “The use of wine or spirits in the management of diseased conditions has now been practically discontinued in your asylum for a period of three years, and it is with confidence asserted that no case has been under treatment which would

have been benefited by the exhibition of alcohol. Yet, occasionally, a daily allowance of wine has been asked for by patients suffering from lingering diseases, and in such cases it has always been granted; and in two or three acute cases, as a result of consultation with others, wine or spirit has been administered, but in no instance with beneficial results. With the year 1879 terminates the use of beer in your asylum as an article of diet. Its value as a food is very small, and out of all proportion to its cost, while the ordinary dietary is ample without it. All the inmates have been allowed half-a-pint of beer with dinner, and the working patients have received in addition the same quantity at ten a.m. and four p.m. The class to which the vast majority of the inmates belong does not and cannot procure malt liquor thrice daily. Those who are sent here for treatment may, however, with much show of reason assume that, having been recognised as a necessary beverage by the authorities of a public hospital—for such, indeed, is every county asylum—and supplied to them as an article of daily food, it has in reality the high value with which they are willing to credit it; and, after leaving the asylum, it is certain they will not be able without a strong effort to break with the habit, which has been confirmed during a residence here of possibly many months. The most serious argument against the use of beer as food, in such institutions as this, is to be found in the fact that excess in drink is undoubtedly the most potent cause of insanity. Stronger evidences cannot be required against a practice which may in any degree tend to foster or lead up to habits of intemperance. The disuse of the beer allowance affects the attendants and servants as completely as the patients, and the perfect willingness with which the *employés* agreed to the change should be fully recognised.”

Cheshire, Upton.—The only fact calling for attention in this report is the severe outbreak of typhoid, due to the complete failure of a new system of drainage. At the time, the occurrence was noticed in most newspapers. Whilst the epidemic lasted the condition of affairs was very serious.

Cheshire, Parkside.—Through the carelessness of a union medical officer, a patient was admitted whose child had died of malignant scarlatina only a few days previously. She fell ill of the fever in the asylum, but most fortunately the infection did not spread.

As is well-known, there is a large amount of surplus accommodation at Parkside, which is utilised by the reception of out-county patients. The Commissioners remark that “a complaint was made to us by a woman (and we felt much the justice of her complaint), who urged upon us the hardship of her lot. She was one of those sent here from the Abergavenny Asylum, and, before she was drafted here, she had been sent from Abergavenny to the Dorset County Asylum. As she said, she was far away from her home and friends, sent to distant parts where she knew no one, and she added—‘This is visiting day, but no one comes to see me; but if I were at Aber-

gavenny my friends would come there.'” With that woman’s position all must feel sympathy. It is an undoubted hardship that poor people should be sent beyond the reach of their friends because the county authorities are too lazy or too parsimonious to provide the accommodation necessary for the insane poor.

The average number resident was 609, and the Committee have appointed a second assistant medical officer.

Cornwall.—It is evident that a great public want is supplied in this county by the reception of private patients of limited means into a hospital—the Carew Building—under the direction of the county officers. As is known, this arrangement works well in Scotland, and might be extensively adopted in England, and thus private asylums would cease to exist if they could not stand the competition. The public will use that which it likes best, and which best meets its wants. “Of the 53 private patients, 12 are received under 15s. per week; from 15s. to 21s., 25; from 21s. to 31s. 6d., 6; from 31s. 6d. to 42s.; whilst there are only two who pay above 42s., but not exceeding 63s. per week. The Carew Building, as far as it goes, fulfils a great public want, by providing excellent means of care and treatment for the insane of small means. We learn that upwards of 20 applications have been refused for want of room this year, and we should rejoice to hear that the Committee could see their way to enlarging this branch of the establishment. It is at present quite separate from the pauper part, excepting that there is but one lodge, and a common entrance for both classes.

Crichton Royal Institution.—This is the last report presented by Dr. Gilchrist, and now Dr. Adams reigns in his stead.

Amongst the pauper patients in the Southern Counties Asylum a curious epidemic of lung disease occurred. It is thus referred to by Dr. Gilchrist:—“The mortality during 1879 largely exceeded the usual rate, being nearly eight per cent. on the numbers under treatment. Only twice during many years has this rate been reached. It may be said to be entirely due to an epidemic of lung disease during the extreme cold weather of last winter and spring. The prominent forms of the disease were congestion of the lungs, bronchitis, and especially pneumonia, often complicated with other diseases. The severity of the attack may be judged from the fact that of the 35 deaths 24 took place in the months of January and February, and 11 during the remaining 10 months. Its fatality excited much anxiety; the diet, the water supply, the drainage, ventilation, heating arrangements, clothing and bedding were all examined with sedulous care, to ascertain, if possible, the source of evil, but none such was detected. The patients who succumbed were chiefly but not entirely the aged—the healthy as well as the sickly, the active as well as the inactive, those daily exposed while working in the garden as well as those who had never left the comfortable quarters and well-heated apartments of the infirmaries. It was only when rumours reached us from other

asylums of similar, though perhaps not so severe attacks, that we divined the real, though already suspected cause—the low temperature.” It is more than probable that the attack was one of influenza, with unusually severe pulmonary complications.

Cumberland.—Extensive enlargements and structural improvements are in progress. On the day the Commissioners visited the asylum 19 men and 46 women were in bed, the majority suffering from influenza. This epidemic occurred in March, at the end of severe frost. Whilst the frost continued there was a remarkable exemption from ordinary colds.

There is one paragraph in Dr. Campbell's report which deserves the attention of some. It refers to evils which are on the decline, but have not entirely disappeared. An annual report is a purely official document, and, as such, should avoid all medical details, and, what is even worse, all sensational and ornamental matter such as used to appear in former days. He says, “In my yearly reports I have always purposely endeavoured very briefly to give an account of the principal doings of the year, but chiefly the results. I hold that this is a business document, and that modes of treatment and interesting phenomena, observed at postmortem examinations, should, if worthy of it, find their proper place in the Medical Journals, and that chronicling the eccentricities of patients in a sensational manner, or enlarging in detail on the amusements, or such trivialities, are equally out of place.”

Denbigh, &c.—The only point calling for notice in this report is that Dr. Williams proposes to abolish beer as an article of diet. At the same time he will rearrange the dietary tables.

Derby.—Dr. Lindsay points out that it is most desirable that imbecile children should not be sent to county asylums, where no special arrangements exist for their improvement, but should be collected in an institution where they might be taught both in mind and body.

Amongst admissions was a woman who, after a few weeks' residence, was discharged as “not insane.” She confessed that she simulated insanity whilst in prison, and was so far successful that she was sent to the asylum.

Hereditary predisposition was found to exist in nearly 25 per cent. of the admissions, and intemperance was the assigned cause in nearly 18 per cent. The recovery rate was above the average, but so was the death rate, the latter being 16·9 per cent. on the daily average number resident. It is a curious fact, calling for investigation, that since 1861 the death rate has only been once below 10 per cent.

Many important structural improvements were carried out during the year, but to these it is not necessary to refer further. The report contains seven pages of medical notes. The results of trials with Sumbul, Potassium Bromide, Zinc, Arsenic, Amyl Nitrite, and Nitro-glycerine confirm those obtained in other asylums. The bromide alone was

found to be reliable, though in a few anæmic cases nitrite of amyl and nitro-glycerine did some good in diminishing the frequency of the attacks. In the epileptic status the inhalation of chloroform saved the life of one patient. The inhalation was pushed to insensibility, and renewed when the twitching of muscles indicated a fresh seizure. The same method of treatment has frequently succeeded elsewhere, but much more frequently failed. Of late years chloral, administered per rectum, has been largely used, and with great success. But the truth is, we have not yet discovered the rational treatment of epilepsy, and cannot foretell what drug will prove best in any given case.

A few brief notes are added on three cases of severe injury (of the skull) evincing few or no symptoms during life; on brain weights, and on skull mapping.

"The autopsy records of this asylum for the last eight years show the brain weights in 420 cases. The average weight of the brain in 250 male lunatics was $47\frac{1}{2}$ ozs., about 2 ozs. less than the healthy average, according to Quain. The maximum male brain was 60 ozs., and occurred in a case of general paralysis. The minimum male brain was 30 ozs. in an epileptic idiot.

"The average weight in 170 female lunatics was $43\frac{3}{4}$ ozs., being only $\frac{1}{4}$ oz. less than the healthy average, according to Quain. The maximum was 53 ozs., and occurred in a case of melancholia. The minimum was 25 ozs. in an epileptic idiot.

"The total average brain weight for all ages and both sexes was 45 ozs."

(To be continued.)

2. French Retrospect.

By M. MOTET, Secretary to the Société Médico-Psychologique, Paris.

Charge of Public Outrage to Decency. Condemnation. Fits of spontaneous and provoked somnambulism. Irresponsibility. Appeal. Judgment annulled and discharge of the prisoner. Medico-legal report.

In its audience of January 26, 1881, the Court of Appeals of Correctional Police annulled the judgment of the lower bench, condemning Emile D— to three months' imprisonment as guilty of public outrage to decency. This man had been arrested the 18th October, 1880, at half-past eight in the evening, by agents of the *Service des Mœurs*, who were on watch near one of the public urinals, Rue Sainte-Cécile. These agents affirmed to have seen many things while noticing that D— had remained over half-an-hour within the urinal. They even pretended that D— had incited one of them with an immoral purpose, without being, however, able to state that other persons had been objects of such solicitation.

D—, roughly carried away by the agents, protested in vain his innocence. He was taken to the police-station, and thence to the dépôt. Three days after he was tried, condemned, and sent to the gaol of La Santé, where he arrived ill, and was placed in the infirmary.

It was particularly remarked that D— remained in a state of semi-hebetude from the time of his arrest to his arrival in the gaol of La Santé. He did not remember to have been tried. Two policemen of Paris had to hold him by the arms, and almost dragged him away from the bench in the Court of Correctional Police, it being not until he was in the prisoners' room that he came out of his stupor, and learnt that he had just been condemned to go to gaol for three months. He had informed nobody of what had happened to him, nor had he been helped by any person, although during all such events his master, as well as one of his workmen, and D—'s own cousin, had been looking for him everywhere. They knew that he was ailing very much the day of his departure; that he had just had copious hæmoptysis, on which account he had gone out to call on his physician; but where had he gone to? They inquired after him at the Morgue; they also went to the Assistance Publique, without, however, discovering any of his traces until he wrote, five days after, to his master.

Now, D— had been received in April, 1879, into one of the wards, under the care of Dr. Mesnet, at the St. Antoine Hospital, and passed there six months. He was not in the least aware of his state, what he complained of being chiefly a great loss of blood from a fungous tumour, situated on the external upper part above the left nipple. It was soon discovered that he was subject to nocturnal attacks of somnambulism; and Dr. Mesnet discovering in this patient a predominant nervous temperament, with feminine exaggerations, and the existence of several anaesthetic points, thought that it would be possible to substitute the spontaneous attacks by provoked ones of somnambulism—a supposition which was quite verified. It was under these circumstances that we had occasion to observe D— at the Saint Antoine Hospital, where several other physicians and students witnessed likewise facts which, though extraordinary, were not in this respect unforeseen, nor different from those which are, at the present time, often observed by the physicians who particularly treat nervous diseases.

As soon as we became cognisant of D—'s imprisonment, we deemed it our duty to help him. What we knew about his pathological antecedents imposed upon us the duty to interfere in his behalf. An appeal was therefore lodged in his case, and the President of the Court of Appeals of Correctional Police did us the honour of charging us with the examination ordered by the Court.

The following is the medico-legal report, which we presented to it on the 5th January, 1881 :—

“The undersigned, Doctor in Medicine of the Faculty of Paris, Knight of the Legion d'Honneur, appointed the 24th November, 1880, by an order of the Court of Appeals, Chamber of Appeals of Correc-

tional Police, to ascertain the mental condition of Pierre Louis Emile D—, accused of public outrage to decency, after being duly sworn, and having taken cognisance of the minutes of evidence produced at the trial, as well as of every particular throwing light on the case, and having several times visited D—, makes on his honour and conscience the following report :—

“The pathological antecedents of D— are long since known to me. I have closely watched this man in the wards of Dr. Mesnet, at the Saint Antoine Hospital. There, undergoing an observation the more attentive in that it was vividly excited by scientific curiosity, D— has been in a fit condition to be studied by the physician-in-chief, his pupils, and a great many physicians. The nervous and intellectual disorders which he has displayed have been every single day noticed during several months, and these notes, put at my disposal, enable me to furnish the Court with positive elements to appreciate the responsibility of the accused.

“The public outrage to decency of which D— is accused may well be a mere episode during a series of complex disorders, reducing itself on last analysis to one of those automatic acts so very common in what it has been agreed to call ‘*state of second condition*’—a state which I have many times seen induced in D—, either spontaneously or artificially.

“D— is a young man, 28 years old, rather well-constituted, with a marked predominance of the nervous temperament ; intelligent, but of extreme emotional susceptibility ; and although he has every external appearance of manhood, he lacks virility entirely. His character is altogether feminine. Being timid, with a soft voice, eyes unusually languid, and of a suspicious demeanour, I am not at all surprised that he should have been suspected of addicting himself to unnatural crimes, since he bears himself like those who commit it, although he does not show the least mark of it.

“He never incurred the least suspicion of his morality during his sojourn at the Saint Antoine Hospital. A close vigilance in this respect did not even disclose any habits of masturbation. Nevertheless, according to D—’s own avowal, he practised them during his early youth ; afterwards he has indulged in sexual excess ; and this excess seems associated with the production of the nervous accidents which he exhibits.

“There is very little important to remark concerning D—’s family history. His mother and one of his sisters are nervous, hysterical females ; his father is a man of quick, angry temper ; but none of his antecedents exhibited any cerebral trouble or nervous disease of a convulsive kind. His first infancy passed without any serious malady ; the first pathological fact worthy of notice dates from the month of August, 1877.

“D—, while in the army as hospital attendant, remained at garrison in Lyons (1873) for almost eighteen months. He was thence trans-

ferred to Vichy. His health was then excellent ; he felt strong, was fat, and weighed 80 kilogrammes. At Vichy he met with numerous easy occasions of venereal excesses, and by their abuse his health became impaired.

"He had gone to the country, the 15th August, 1877, with several companions and women. In the midst of the dinner, and under no influence of alcoholic excitement, he was seized with shivering, followed by a very great uneasiness. He fainted away, lost consciousness, and they thought him dead. He recovered himself slowly. The first sense to wake up was hearing ; he could hear what was said by him. Motionless, in utter impossibility to articulate one word, he heard the chief physician to the hospital pronounce the words, 'epileptic fit.' He wanted to deny it, but could not do it. He had three other similar attacks on the same day ; carried into the hospital, he remained there six weeks, having at first every day, and then every other day, similar attacks, until they gradually became more distant, and when he was considered better he was allowed a furlough, which he spent with his family.

"He left the army entirely in November, 1877, and resided about one year in the country with his family. He then became tired, and coming to Paris towards the end of 1878, he entered into the Lyons Railroad Company, and was sent as accountant to Villeneuve-Saint-Georges. Being a good officer, very much liked by his companions, he seemed happy, and anxious to keep his situation. One day he came over to spend the afternoon in Paris, and, as he was about returning to his place in the evening, he was seized suddenly by one of his attacks, at the Place de la Bastille. His companions carried him to a hotel, Rue de la Cerisaie, believing that rest would be sufficient for his recovery. He remained there twenty days, and as his means began to be exhausted, the physician who attended him advised him to go to the Saint Antoine Hospital, into which he was admitted in April 1879, and placed in the wards visited by Dr. Mesnet.

"If I have insisted on these preliminaries, it is because I consider it necessary to establish distinctly that D— had been for a long time ill when he entered into Saint Antoine Hospital. The disorders he exhibited there were of an uncommon nature ; some inexperienced observers had mistaken them, whilst others, puzzled by their character, looked upon them with more systematic than scientific incredulity. To those who, on the contrary, more familiar with nervous derangements, met in D— with a subject for interesting study, his case only presented a complex neurosis, it being further possible to reproduce in it at will the phenomena which have been observed in analogous instances by other observers.

"I could not enter into all the details noticed in the complete observation of D—,* and will only sum up the principal facts, in order to bring out prominently the main features of the malady.

* Dr. Mesnet intends to publish the notes at a future day.

"D— is seized, without any regular periodicity, by attacks of somnambulism, during which he becomes apt to undergo the influence of a will other than his own, to obey orders without possible resistance, and to reproduce unconsciously, without memory thereof, in an automatic manner, acts corresponding either to his ideas while awake, or to those which are suggested to him. These attacks were at first exclusively spontaneous, but afterwards they have been easily provoked. Both kinds are identical in their nature; they are in every respect analogous to the phenomena produced in highly hysterical women. They are accompanied with extasis, catalepsy, and with complete anæsthesia throughout their duration. The spontaneous attacks exhibit as a peculiarity that D— although having altogether ceased to be his own master, can follow up any idea which has engaged his mind while awake. Thus, one night he succeeded in running away from the hospital, and reached the Boulevards. He was arrested and brought back to the hospital by some *sergents de ville* (policemen). Now, it was known that he felt very tired, having repeatedly asked for leave to go out, and, before his evasion, he had written a letter thanking the physician-in-chief for his kindness, and begging for his *excuse*. In one of the provoked attacks he was made to write the same letter, with the very same words, it being possible to re-enact then the scenes which happened during the stage of spontaneous somnambulism.

"Nothing is easier than to make D— pass from the normal, or first condition, into the pathological or second condition. It is not even necessary for such a purpose to resort to the means which superinduce the hypnotism, and once brought into that condition he becomes completely deprived of his will. All that I have seen in him during such a condition is in accordance with what may be obtained in patients affected with nervous troubles. I will not occupy myself in attempting its explanation, for we do not as yet know it. We can only record similar facts, hoping that patient enquiry, or perhaps a happy hazard, may disclose their concealed scientific interpretation.

"But such states, chiefly among males, do not develop themselves without previous preparation, without having been kept up by particular conditions, such for instance as derangement of general health. When D— entered the Saint Antoine Hospital he was ill and anæmic. This man was then subject to considerable losses of blood. He had on the outer and lower part of the left nipple a pediculated tumour, like a mushroom, with a budding surface which most readily bled (*melæna*). He was, besides, subject to hæmoptysis, which had ceased for months to reappear suddenly, with such an abundance as to be always followed by syncope.

D— had had, the 18th August, 1880, in Rue Druot, an attack of this kind, and it was necessary to carry him into a pharmacy shop, where he was attended. The hæmoptysis returned in October, and as D— grew thereby more enfeebled, his nights became bad, and the attacks of somnambulism reappeared. He had besides 'absences'

in the daytime. Those around him felt uneasy, without exactly understanding his state, and urged him to place himself under treatment. Finally, the 18th October, he had considerable vomiting of blood, almost filling up a basin, and thereupon he was seized with syncope. Dr. Bartrand was called to attend him, as attested by a certificate in the minutes of evidence at the trial. This physician had attended D— before, and, without knowing the nervous state of the patient, had remarked, ‘a state of weakening and hebetude which deprived him of free will.’ That same day, October 18th, D— had another hæmorrhage ; in the evening, feeling quite exhausted, and afraid of going up to the sixth floor to look for his portemonnaie, he borrowed five francs from one of his companions at the shop to get a draught of perchloride of iron, which a chemist in the Faubourg Poissonnière had on other occasions put up for him. On his way to the chemist he kept on spitting blood, as evidenced by two handkerchiefs stained with blood, found in his pockets at the moment of his arrest, and one of them belonging to his master. As he passed by Rue Saint Cecile, he went into the public urinal, and wet his handkerchief with the water running from the washing tube fixed on the vertical slab, to remove more easily the blood sticking to his moustache. From this moment he does not recollect what had happened, nor how long he remained there motionless. The report of the agents states that he so remained for three-quarters of an hour, as may have been possible ; nay, it is even probable that he would have continued still longer had he not been roughly aroused from that state, which, as I believe, is not to be wondered at, after becoming aware of the series of troubles I have already narrated. What can be, however, less readily granted is, that a man who, upon being seized in the morning with a terrible hæmorrhage, continued throughout the day and evening to vomit blood freely, and who was seen by a physician, by his master, and by another workman in a state of extreme exhaustion, could have had, on the night of that very same day, strength to persist for three-quarters of an hour in acts of masturbation, or of such a nature as to constitute the offence of public outrage to decency. The fact, in my opinion, bears in itself by reasons altogether physiological, the evidence of its physical impossibility, which I deem my duty to point out.

“ Consequently, granting on the one hand, the fact directly observed by myself and by physicians of unquestionable authority ; and on the other hand on the information I have been able to obtain, and which disclose the whole events during the day of the 18th October, when the prisoner was seriously ill, we are authorized to conclude that D— could not have committed the public outrage to decency for which he has been indicted. That if his attitude, during the long time he remained in the public urinal, might have seemed suspicious to the agents on watch, such a singular posture, and such a prolonged stay, find their explanation without any difficulty in the pathological conditions which I have here detailed.

“ Signed : A. MOTET.”

During the audience we maintained strenuously the above conclusions : we affirmed that D— was not a sound person ; and we demonstrated, basing on the records kept at the Saint Antoine Hospital, that the beginning of the complex neurosis which he displayed dated from no recent time. We showed that D— presents two states : one normal, during which he is responsible for his acts, the other pathological, during which he ceases to be his own master, to control himself, and we stated that during this second condition, of which he had no recollection, he was wholly irresponsible.

President Manan took the evidence of the two agents who arrested D—. Their testimony affirmed in the most categorical terms the offence of public outrage to decency ; it even went further, for the agents pretended that D— was well known to them, that he frequented the passages, that they had often followed his traces from eight until nine in the evening. Yet it was proved by two witnesses that D— *never went out* before half-past ten or eleven o'clock at night. He was the last to retire, being charged with closing up the shop, and with arranging everything before his departure. We were not concerned with the discussion of the agents' testimony, and being asked by the President as to whether they affected our conclusions, we replied that we still held to them without any change.

The Attorney-General Bertrand, in a request as striking by the temper as by the dignity of the discussion, remarked to us—" The facts are materially established ; two men have testified on their oath that they have seen D— commit a public outrage to decency ; we, as magistrates, have nothing else to do than to apply the law. You physicians, come forward to tell us that this man is not responsible ; but you have told us also that together with the nervous and cerebral troubles, he exhibits periods of a normal state. If it is true that he successively passes from periods of the *first condition* or normal, into periods of the *second condition* or pathological, let it then be proved that at the moment at which he was arrested that he was in a state of the *second condition*."

In all medico-legal cases in which we have interfered, we have always made a law to affirm only that of which we were certain. We could not, therefore, reply to the pressing question of the Attorney-General by saying that it was certain that D— was, at the time of his arrest, in a state of the second condition. Yet we could take again the data of the observation to manifest how important must be the loss of recollection to discriminate the state of the accused at any given moment.

The Court, however, had shown some hesitancy and doubts, considering it difficult to admit that a man might pass through such different states, and undergo the influence of a will other than his own. We proposed to make the Court witness an experiment as simple as it is easy to accomplish, and which for our masters Professors Laségue, Charcot, Vulpian, and several others, has long since ceased to belong to the

group of extraordinary and been ranged among the pathological facts.

It was really with a pathological fact that we were dealing ; and should the experiment have failed to add a new proof, in proposing it we stood on scientific grounds. Medical jurisprudence practised by independent men, as we all are, having no other aim beyond truth and its demonstration, cannot but improve by such tests, and, for our part, we very much thank the President of the Court of Appeals of Correctional Police for his willingness to be convinced, and to allow us to afford him at once the means thereof.

This is the manner in which we proceeded. D—, we stated, can easily be placed into a *state of second condition*. It is sufficient to force him to look fixedly during a few instants. By so doing we put him into a stage of provoked somnambulism, in which, ceasing to be his own, he became deprived of free will and obeyed ours. We were closed with some of the counsellors in the council chamber, and D— was in the room for the accused. We called him ; as soon as he heard our voice he rushed towards us, pushing aside the guards of Paris on his way, with the force of a man who overthrows an obstacle, opened the door of the room, and, once arrived near us, he stopped motionless and waited. At that moment he did not know or see anyone but us and only obeyed us. The President, desiring to assure himself about the loss of recollection concerning the facts relating to the attack, asked, us in a low voice to order him to loose his trousers. We told him, “D— undress yourself.” He takes off his clothes with quickness. Then, by request of the President, we asked him, “What have you done at the urinal, do you remember it?” And we placed him before the wall. Thereupon he takes out his handkerchief, brings it near the wall, and makes the gesture several times in succession of wiping his mouth. We awoke him by the mere blowing of cold air to his eyes, and his physiognomy expresses a deep surprise at finding himself there. The President approached him and said to him—“D—, you have just uncovered your person before us.” “I don’t believe it, sir,” replied he. “All these gentlemen saw you as well ; look at yourself, you have not buttoned up your trousers—they are not adjusted.” “Sir, I don’t remember it.”

Dr. Mesnet was present at the audience. By our request the President allowed him to come into the Council Chamber. He also took hold of D—, and in a few seconds brought him into the condition in which we had placed him previously. From this moment we became as much strangers to D— as the other persons who were present. Dr. Mesnet ordered him to write, and setting him near a table with paper and a pen, he made him write the first lines of the letter he had addressed him from the gaol of La Santé. While D— was writing we showed his complete anæsthesia.

The experiment was then considered sufficient. D— was awakened, and taken back to the room of the accused.

On resuming the audience, the Court rendered the following judgment :—

“Whereas if it seems established that D— committed the acts for which he has been indicted, it is not sufficiently established that he is morally responsible for them.

“Considering, in fact, as it results from Dr. Motet’s examination extending back to a long date, that the accused falls often into a state of somnambulism, that in such state he could not be held responsible for his acts ; whereas the said examination has been further strengthened by an experiment before the Chamber in council ; and that under such circumstances D— could not be regarded as responsible, the Court annuls the judgment on appeal, and dismisses D— from all charge.”

3. *German Retrospect.*

BY WILLIAM W. IRELAND, M.D.

The German Retrospect has been done from the following periodicals :—

“Archiv. für Psychiatrie und Nervenkrankheiten,” x. Band, 2 and 3 Heft, 1880 ; xi. Band, 1 and 2 Heft. Berlin, 1881.

“Allgemeine Zeitschrift für Psychiatrie,” xxxvi. Band, 4, 5 and 6 Heft ; xxxvii. Band, 1 Heft, 2, 3, and 4 Heft. Berlin, 1880.

“Centralblatt für Nervenheilkunde, Psychiatrie, und Gerichtliche Psycho-Pathologie,” Nrs. 15 to 24, 1880 ; and Nrs. 1 and 2, 1881, Leipzig.

“Der Irrenfreund.” Nrs. 7 to 12, 1880 ; and Nr. 1, 1881, Heilbronn.

“Verhandlungen der Physiologischen Gesellschaft zu. Berlin,” 9th August, 1880.

“Die Schrift, Grundzüge ihrer Physiologie and Pathologie,” von Dr. Albrecht Erlenmeyer. Stuttgart, 1879.

The Central Origin of the Optic Nerves.

This, according to Stelling (“Centralblatt für Nervenheilkunde,” 15th August, 1880), is as follows :—

1. From the branch which enters the optic thalamus in part by means of the lateral corpus geniculatum.

2. From the known branch which goes to the middle of the corpus geniculatum.

3. From the superficial branch which goes directly to the corpora quadrigemina.

4. From the origin of the crus cerebri.

5. From the tuber cinereum.

6. From the locus perforatus anticus.

7. From the surface of the optic thalami.

There are also ganglia near the tuber cinereum for the origin of the optic nerve, but it is not known what significance this has in single cases.

On the Retardation in the Conduction of Sensory Impressions.

Dr. A. Takacks has devised an instrument for the registration of tactile impressions, which is described in the "Archiv," x. Band, 2 Heft. It was found that only in three healthy cases the time for the apprehension of a sensory impression exceeded half-a-second; the shortest time registered is 0.19. In ataxia the period of conduction was retarded, and this retardation had a marked relation to the parts affected. Thus where the muscles of the face had no ataxic movements the sensory impressions were not retarded, but where there was a slight ataxia of the hands there was also a marked retardation, and where the ataxia affected the feet to a considerable degree there was a retardation amounting to as much as three seconds. The prolongation of the sensory impressions seemed to be in proportion to the ataxic character of the movements.

Dr. Takacks considers that his experiments confirm what he had previously observed, that when ataxia is increased by shutting the eyes, there is also anæsthesia or hyperæsthesia.

Accidental Vivisection of the Spinal Cord.

Dr. Richard Schulz ("Centralblatt für Nervenheilkunde," Nr. 15, 1880) gives a case which occurred in Brunswick, illustrating the physiology of the spinal cord. A man was set upon by some workmen, and, amongst other injuries, received a stab between the spinal processes of the fifth and sixth dorsal vertebræ, swerving a little towards the right. The knife was found sticking in the man's back, and it required great force to pull it out. It had evidently penetrated the right side of the spinal cord, for there were hyperæsthesia and slight paralysis of the right leg, and anæsthesia of the left leg, with paralysis of the bladder and rectum. The wounds healed up in about three weeks, but Schulz did not see the patient till about six months after the occurrence. He complained of great weakness of the right leg, with a tendency to tremor, and great tenderness of the skin of the right leg and right side of the body, below the stab, and a feeling of sleeping of the left foot and leg. The right leg was thinner than the left, and the muscular sense seemed diminished. Sensibility to the continuous and interrupted current, as well as the reaction of the patellar tendon reflex, was much increased in the right leg, but irritability of the muscles to electricity was not increased. The symptoms were all capable of explanation by the known physiology of the cord, save the hyperæsthesia of the right leg.

The Cortical Centres for Sight and Smell.

Dr. Herman Munk, at a meeting of the Physiological Society of Berlin ("Verhandlungen," 9th August, 1880, Nr. 18) gave the

results of his latest experiments, made with a view to ascertain the visual and olfactory centres of the brain. His experiments upon the dog support the view, which he had already published, that the visual centre is to be found in the grey matter of the occipital lobes. If these are destroyed the dog is what he calls "seelenblind," that is although the optical apparatus of the eye is uninjured, visual impressions do not reach the mind, and the animal makes use of the sense of smell alone when he gropes for his food. In the monkey he showed that there was hemiopia after the extirpation of one occipital lobe.

Dr. Munk is pleased that Luciani and Tambourini have confirmed this observation, but blames them for finding hemiopia when the gyrus angularis is destroyed, a symptom which passes away with time. He himself has again examined the gyrus angularis, and has no doubt whatever that it has nothing to do with vision, but with the common sensation of the region of the eye. On the other hand, after the complete extirpation of the occipital lobes dogs remain quite sightless, with no improvement for months. He finds, on removing the cortical matter of one occipital lobe, that the right centre corresponds to the left half of both retinas. When he removed one-half from the side of the occipital lobe from the left side the monkey was blind in the lateral temporal half of the left retina, but when the median half of the left occipital lobe was removed the monkey was blind in the middle (nasal) half of the right retina. In a monkey he removed the lateral half of the left visual centre, and after the wound healed the middle half of the right visual centre, the result being that the animal became sightless in the left eye, and this continued during the time that he survived the operation, from six to thirteen weeks.

Dr. Munk states that he found he could produce blindness in patches of the retina by removing circumscribed portions of the grey matter of the occipital lobe. He believes that he has discovered the seat of olfactory sensation in the gyrus hippocampi. In the lower mammalia, which have the sense of smell highly developed the gyrus hippocampi is large; in those higher mammalia, in which the sense of smell is slight, the gyrus is small. Munk observed in a dog, which had become sightless from extirpation of the visual centres, that the sense of smell was also lost. It was no longer guided to its food by the scent, and only snapped up food when it was aware of its presence by the touch. It would put sponge into its mouth instead of flesh, which it dropped when the difference of taste was perceived.

On examination after death it was found that both gyri hippocampi had been disorganised into a fluid, distending the outer wall, as water does a bladder. The anatomical connections of the gyrus also favour the idea that it is physiologically connected with the olfactory tract. Dr. Munk thus rejects Ferrier's views as to the seat of the centres of sight, smell, and feeling. Ferrier places the visual centre in the gyrus angularis; Munk in the occipital lobe. Ferrier places the centre of tactile sensation in the region of the gyrus hippocampi and uncus, while Munk places the centre of olfactory sensation in the

first of these gyri, and will not even allow tactile sensation to remain in the gyrus uncinatus.

Experiments on the Temperature of the Brain.

Dr. Maragliano, of Genoa ("Centralblatt der Med. Wissenschaft," Nr. 27) has made some experiments on the dead body in order to ascertain whether the temperature within the cranium is correctly indicated through the thermometer laid upon the scalp.

Placing three thermometers on different parts of the shaved head, he introduced another thermometer within the skull, the cavity of which was filled with hot water. He found on comparing the temperature of the outer and inner thermometer that within half-an-hour the difference was about 2°. Dr. Maragliano observes that in many cases the temperature of the head has been found to be higher than that of the axilla, showing that the brain has a heat independent of the general temperature. He found that to obtain correct results it was often necessary to prolong the observation for an hour. Dr. Maragliano concludes from his investigations—

1. That the thermometer placed upon the skin of the head directly indicates the variations of the temperature within.

2. The temperature of the left side of the head is always higher than that of the right.

3. The temperature at the external orbital angle and behind the ear is higher than that at the external occipital protuberance.

4. Mental activity, age and sex have a marked influence upon the temperature of the brain.

Case of Deficiency in the Brain.

Dr. Chiari ("Centralblatt für Nervenheilkunde," 1 November, 1880) on examining the brain of a girl who died of phthisis, at the age of 13, found a considerable deficiency of the brain in the left temporal lobe, in the region of the temporal gyri, and the anterior end of the gyrus fusiformis. There was a fissure seven centimetres long, two broad, and 1·5 c. deep. This fissure ran in its posterior half very near the middle corner of the third ventricle. The wall of the fissure was covered with pia mater, and the interval between it and the arachnoid was filled with a clear serous fluid. The rest of the brain had a normal appearance; but there was an increase in the neuroglia with fatty granules and brown pigment corpuscles, showing that the deficiency in the brain was owing to inflammation or fatty degeneration and hæmorrhage. We are told that no cerebral disturbance was noticed during the girl's life, though it is not said what degree of intellect she possessed.

Notes on the Gyrus Angularis after the Loss of an Eye.

Dr. Burckardt in the Report of the Anstalt Waldau in the Canton of Berne (quoted in the "Centralblatt für Nervenheilkunde," 1 September, 1880) gives the following case. An idiot, 22 years of age, had

lost the right eye in infancy, probably through an injury. The left eye showed a strong nystagmus. The sight was pretty good. He died of purpura hemorrhagica. The convolutions were fairly developed, but there was a decided difference in the gyri angularis of either side. On the right side it was well developed; on the left the convolution was smaller and narrower. The praecunulus on the left side was also smaller.

Supposed Lesion to the Auditory Centre.

Dr. Schäfer (*"Centralblatt für Nervenheilkunde,"* 1 February, 1881) details a case illustrating some curious points in the physiology and pathology of the brain.

E. M., a man of 45, was received into the asylum at Pankow, on the 30th of May, 1879. Two years before there had supervened a noticeable weakness of judgment and slight injury to speech, and in December, 1877, he fell down in the street without consciousness, but recovered in a few minutes. He had similar attacks of unconsciousness in March and June, 1878, and was accidentally injured by a waggon driving over his head. Since then there were irritability, loss of memory, and a slight stammering, and on the 30th of April he became suddenly so excited that he was brought to the asylum. On entering it was noticed that there were mental weakness and convulsions of the left side of the face, slight leaning of the body to the left side, trembling of the legs and hands, and slight disturbance of speech. On the 7th of June the patient had an epileptic attack with incomplete paralysis of the left side of the body. Next day there were clonic convulsions of the affected side. On the 9th June the motor paralysis was complete, with diminution of sensibility on the right side, and a deviation of the head and eyes to the right. This was followed by delirium. In about a week the symptoms began to improve. The bodily temperature was not raised, nor the pulse quickened.

On the 18th of June, after consciousness had returned, the patient had in some measure recovered the use of his limbs. He lay with his right side to the wall, and when any one spoke to him from the left, he regularly turned his face towards the wall, as if speech were addressed from the right side. When Dr. Schäfer asked him to look at him, the patient turned round to the left. Two days afterwards he was able to get up. When any one spoke to him from the left, he always turned to the right, and when he got the military command, too well known to every German, "*Rechts um,*" he turned the wrong way. Dr. Schäfer observes that two explanations are possible about the strange mistake of referring sounds from one side of the body to the other. The patient may have heard correctly and known whence the sounds in his own ear came; but through disorder of the muscular system his motions were different from what he designed. It seems more probable that the impressions taken in at one ear found their mental realisation in the cortex of the opposite hemisphere, and on this account were projected outwards by the mind

to the opposite side. Dr. Schäfer quotes Munk's experiments to show that the auditory centre is in the temporo-sphenoidal lobe. When this part is injured, there is what Knssmaul calls "word-deafness." Of course Dr. Schäfer regards the little abscess in the right temporal lobe as a sufficient explanation of the want of realisation of sounds on the left side; but it is not so easy to explain the second occurrence when the sounds on the left were referred to the right. He endeavours to explain it by the supposition that the parts around the abscess had in the meantime learned to take up the vicarious function, and that the left side in its turn had become diseased. He observed hyperæmia in the under surface of the left temporo-sphenoidal lobe, and on microscopic examination there were found increased vascularity and dilatation of the vessels, numerous spider cells, and changes in the contents of many of the ganglion cells.

The Idiots of Brunswick.

For the last 14 years Dr. Berkhan has been making observations on the idiots of the City of Brunswick, both in asylums, poor-houses and schools, as well as in his private practice ("Zeitschrift," xxxviii Band, 3 Heft.). The population of Brunswick is about 72,085, and Dr. Berkhan has found 116 idiots, *i.e.*, one to every 621 persons. Of these 75 were male and 41 female; 40 males and 29 females were full idiots (vollidioten); and 35 males and 25 females imbeciles. His tables show that idiots are a short-lived class. There were 97 under 30 years of age, and only 19 above this period. There was but one, an imbecile man, above 55 years of age. Twenty-nine of these idiots were first-born children, 19 males and 10 females. He does not give the average rate of fecundity in Brunswick. Dr. Berkhan treats of eclamptic fits as symptomatic of idiocy. It is to be regretted he has not studied them as a cause, especially as in the course of his practice he seems to have seen some idiots in early childhood. He finds great mortality in the brothers and sisters of idiots. Eighty idiots had 245 brothers and sisters, and of these 143 were dead, many of them of epileptic fits. Without the ages of these idiots and their relations, this species of statistics is of uncertain value. He has some tables giving the measurement of the heads of idiots and their increase of size as they get older.

Microcephalic Idiocy.

Dr. Berkhan, of Brunswick ("Zeitschrift," xxxvii Band, 2 Heft) describes nine cases of microcephalic idiocy which he has seen in different parts of Germany. Three of these were male and six female. Two were in their own homes, one in a lunatic asylum, and six in institutions for idiots which contained about 500 idiots in all. From this it appears that the proportion of microcephales to other idiots is not greater than 1 per cent. It is remarkable that many of these microcephales had brothers and sisters with the same deformity. He

notices three microcephales, two brothers and a sister, in one family and four in another, and quotes the observation of Vogt, who had seen seven microcephales in four families in one small village near Stuttgart. Van Andel said that a villager in Holland had 14 children, of whom four were microcephalic; and in the family Becker there were four microcephalic children, one of whom was described in the well-known monogram of Professor Bischoff.

Dr. Berkhan gives an engraving of a small and mis-shapen skull found amongst the mummies of Egypt, and two statues with very small heads are preserved at Rome, and drawings of men with microcephalic or deformed heads have been found at Palenque, in Mexico. He observes that with other forms of idiocy there are often brothers and sisters who are also idiotic or eclamptic; many of these die in infancy from convulsions or constitutional weaknesses. Microcephales are generally stronger, and grow up. The oldest microcephale of whom he knows lived to the age of 44.

Dr. Berkhan is disposed to favour the view of Klebs, who attributes the small size of the head to abnormal pressure of the uterine walls during the fetal condition, but in some cases he thinks that it may be owing to encephalitis in utero, or to premature closure of the sutures. He gives a short account of the examination of the head of a microcephalic infant who died at the age of fourteen months. The circumference of the head was $29\frac{1}{2}$ centimetres = 11.7 lines; $15\frac{1}{2}$ c = 6 inches 1 line. The fontanelles were pretty large; the sutures were not united; the bones of the skull thin. The inner surface of the base of the cranium was broad behind. The frontal lobes were rather small in proportion to the brain, and the cerebellum decidedly large. On the left side of the middle lobe, near the base, was a sack filled with fluid about the size of a hazel nut. As the brain was accidentally destroyed it was not weighed, nor a careful examination made of the internal parts. Nothing abnormal was noted about the convolutions.

Dr. Berkhan thinks that the female microcephale, at least, might have progeny. Apparently he is not aware that there is one instance of conception, but the child was still-born. He refers to the Aztec microcephales who lived together as man and wife, but had no offspring.*

* I saw the two Aztecs recently in Glasgow, where they were being exhibited for a penny. They were publicly married in London, in 1867. The female showed jealousy of the male by shaking her finger at him "when he paid attention to other ladies." She was playing with a toy. They said that she was not fond of children. They seemed very gentle and goodnatured, and spoke a few isolated words, such as when I asked the male what he would do with some money, and he answered, "Cigar," being fond of smoking. The female said, "Cold" when the showman exposed her neck to let me see how well nourished she was. The male was said to be forty-six; the female several years younger. I could see no grey hairs. The male had $1\frac{1}{4}$ teeth, some of which were decayed. They had both vaulted palates. The male wanted a metacarpal bone in each little finger, and the big toe overlapped the others on each foot. Deformities of the toes are common with idiots. I measured the

Dr. Berkhan knows of a "half idiotic" man who married, but had no children, and of a man who married a half idiotic female, who bore him three children, two of whom were idiots. He observes that female cretins show aversion to male cretins, while attracted by healthy men and that male cretins cast their eyes only on healthy women.

A Microcephale's Brain.

Dr. Chiari ("Centralblatt für Nervenheilkunde." 1st November, 1880) describes the brain of a microcephale, a girl six years of age.

It weighed 507 grammes; the cerebrum 405 grammes. The leading gyri and sulci were present, but not finely divided. There was little variety in the arrangements of the convolutions in either side. The temporal gyri were most deficient, and at the posterior end of the left middle frontal gyrus there was a knot of tubercle about the size of a bean.

All the sutures were open, and there was no abnormality in the skull, save its remarkable smallness. The child could only utter inarticulate words. She did not recognise any objects or ask to be fed.

Temperature in General Paralysis.

Dr. Reinhard ("Archiv," x. Band, 2 Heft) has an article of 129 pages upon this subject. He devotes the first ten to a retrospect of the observations of previous inquirers upon the temperature of the insane, the general result being that it is lower than usual in melancholia and apathetic dementia, and higher in excited, disturbed, and maniacal conditions. It sometimes rises after epileptic attacks.

A great many observers have noted a higher temperature in general paralysis, and this as Dr. Clouston has remarked, serves to distinguish the ordinary epileptic attacks from those of general paralysis, the temperature of the latter being decidedly higher. L. Meyer found a rise of about 2.5° centigrade in all his cases of general paralysis, without the other complications, such as erysipelas, phthisis, or abscesses, to which this high temperature had been ascribed. He found that febrile exacerbations go along with periods of excitement, that the ordinary bodily heat in general paralysis was higher than the normal, and that the temperature of the head was higher than in the rectum; but he failed to observe the regularity in the thermometric curves throughout the disease. He considered general paralysis to be a continued febrile condition, depending upon chronic meningitis.

Dr. Reinhard gives us a careful description of the fifteen cases of general paralysis, whose temperatures were so carefully studied. The other symptoms are also recorded, and the lesions found after death in those already deceased. The temperature was noted three times a day

head of the male microcephale as well as I could for his bushy hair. The measurements were—antero-posterior (from glabella to external occipital protuberance) $8\frac{1}{2}$ inches; circumference 15 inches; transverse (from tragus to tragus) $9\frac{1}{2}$ inches. I returned to make a more leisurely visit, but found the place shut up.—W. W. I.

in the axilla and upon the mastoid process, the lobe of the ear being pressed against the bulb of the thermometer. He found that it took ten minutes to make an accurate observation in the axilla, and twenty-five minutes below the ear lobe. In fact, the ear takes that time to warm up to the general bodily heat. It would have been more satisfactory had observations been taken at three different regions of the head.

Dr. Reinhard always caused his observers to wait four or five minutes after the column of mercury had ceased to rise, to ensure a correct observation. He accepts the data of Bärensprung as fixing the physiological range of temperature. According to Seguin this is 37° C = 98.6° F., with an excursus of $.49$ above the norme, and $.69$ below it. In many of Dr. Reinhard's observations the temperature in the morning fell below the physiological scale, being as low as 36° with a fraction. He seems to pay little attention to this fact, which must strike all who read over the tables; but he remarks in a note that low temperatures occur towards the close of the disease, where there are grave vaso-motor and trophic lesions. A common rise of temperature is from 37° to 38° or even to 38.5° ; but higher than this was rare. In about half the cases of general paralysis the variations of temperature were considerable; in the others less marked, and in one there was little change. The midday and evening temperatures were, on the whole, higher than the morning ones, otherwise it was difficult to reduce the changes into a generalisation. A rise of temperature did not even constantly accompany excitement. The rise of temperature was often found to commence ten or twelve hours before the excitement; more rarely it happened that they came on simultaneously, generally disappearing together. Where the mental excitement was very great it was always accompanied by a high temperature. The frequency of the pulse was found to be proportional to the rise of temperature. On examining the temperature in the axilla on both sides in three cases, where there were paralytic attacks, it was found that the temperature in the paralysed side was higher, and that in proportion to the degree and extent of the paralysis. Dr. Reinhard discusses at length the question whether this rise in temperature during the course of general paralysis has inseparable connection with disease. He avows his conviction that increased heat is really owing to a morbid process going on in the nervous centres. It appears to be a periencephalitis. He combats the view that the rise in the temperature can be caused by inflammatory action in the lungs or other casual diseases.

But it is principally in the diagnosis of general paralysis that thermometric observations are at present of value. Dr. Reinhard has studied the temperature in other forms of insanity, so that he is enabled to indicate the differences existing between them and what is found in general paralysis. He only observed an increase of temperature in primary insanity, when there were serious complications; and even in the excitement of mania and the paroxysms of melancholia

there was no increase in the bodily heat, nor any alteration in the relation of the temperature of the head to that of the axilla. In the stupor of melancholia the temperature was sometimes abnormally low. In puerperal insanity and in the insanity of lactation Dr. Reinhard frequently observed a slight feverish movement, and sometimes in the passive congestion, occurring in these patients, the temperature of the head was found to be as high as that of the axilla.

In these cases there was great variation in the bodily heat from day to day. The degree of dilatation of the pupil changed frequently, and was sometimes unequal on the right and left side. In dementia there was never any rise of temperature, though sometimes it fell below the normal standard, both behind the ear and in the axilla. In chronic insanity, following after alcoholic excesses, the temperature was found to be very low.

Dr. Reinhard finds the differential diagnosis of general paralysis as indicated by the thermometer in the excess of the temperature of the head over that of the body, in the existence of grave variations in the bodily heat from day to day, and in the frequent appearance of slight febrile bodily temperature without any given cause. It is in the earlier stages of general paralysis that he considers the diagnosis will be most assisted by the thermometer. He considers that where these variations exist the disease takes a more rapid course, and that a return to the normal temperature is a favourable symptom. He thinks that the disease should be treated as a chronic inflammatory process, and the aim of the practitioner should be to treat the fluxes and stases in the brain, and to try to obviate their return. Devoting two sentences to the treatment, Dr. Reinhard recommends the guarding the patient against all disturbing influences, bodily and mental repose, a non-stimulating diet, occasional mild purgatives, the frequent application of ice to the head, and moderate local bleedings at the septum narium and the temples. He has a dim suspicion that, in this way, he once cut short the early stage of general paralysis, and refers us to a paper of Dr. L. Meyer (*"Berliner Klinische Wochenschrift,"* 1877, Nr. 21) in which those interested may see that "such treatment seems to be not without effect."

It appears that Dr. Reinhard's MS. was finished in September, 1879, on which account he could not notice the observations of Crömer in the *"Allgemeine Zeitschrift der für Psychiatrie,"* xxxvi. Band, 2 and 3 Heft, of which an abstract was given in the *"Journal of Mental Science"* for July 1880 (pp. 306-307). On one point Dr. Crömer decidedly disagrees with Dr. Reinhard, as he holds that the temperature of general paralysis, so far from being higher, is abnormally low; but he observes that the general temperature is high in those cases in which the paralytic appearances are severe. Dr. Crömer notices the daily oscillations in the temperature which seem characteristic of the disease.

(To be continued).

4. *Retrospect of Mental Philosophy (Periodical Literature).**(Continued from Oct., 1880.)*

By B. F. C. COSTELLOE, B.Sc. and M.A., Glasgow, B.A., Oxon.

*Mind : A Quarterly Review of Psychology, Nos. xx. and xxi.**(Oct., 1880, and Jan., 1881.)*

The "Philosophical Magazine" is certainly not falling off in merit or interest as time goes on, and, as it is now beginning the sixth year of its existence, one may hope that it has got beyond the period of the diseases and dangers of childhood, and become a permanent addition to the list of our periodicals. The autumn number contains much that will interest our readers. Dr. Edmund Montgomery concludes the uncouth but able treatise on "The Unity of the Organic Individual," to which we referred in our last Retrospect. We have sought for a quotation which might in some way convey the drift and outcome of his long and ingenious argument, but can find none better than this :—

"I believe that the conception of life here maintained—the conception, namely, that the individual organism constitutes but one single chemical unit—will be found to afford an easy and scientifically legitimate explanation of the most recondite phenomena of vitality, the activities of growth and reproduction. You remove from a chemical compound a part of its integrant atoms ; it is then no longer saturated, but represents a chemically disequilibrated residue with combining powers corresponding to the severed atoms. Whenever occasion offers, the radical will become re-saturated ; it will, in fact, restitute itself—will restore the integrity of the compound which it radically represents. Surely it is this admitted chemical occurrence which underlies the vital phenomena of growth, repair, and production. In this light the fundamental activities of life can be conceived as one single consistent chemical action, functionally checked by outside influences. To contradistinguish the theory of organisation here briefly expounded from the prevailing cell theory, I call it the theory of specification—*specification* of one single protoplasmic unit into definite areas of disparate stimulation—not *association* of a number of elementary organisms for the purpose of dividing among themselves an hypostatized physiological labour."

In other words—for this jargonic writing will be a puzzle to most people—Dr. Montgomery believes that the germ cell of any higher organism must be an entirely different thing from a mere amæba. The latter only reproduces its own kind. Its constitution is fixed and limited. There may be a development of outward influences which will impress changes upon it, but that is yet to come. The germ cell which evolves a complex organism out of itself must have already within it "the condensed result of accomplished development." "The amæba

is a complete protoplasmic unit, generically fully equilibrated. The germ cell represents a generically disequilibrated fragment of a protoplasmic unit."

We have not space to explain the writer's application of this theory to psychology; but it is entirely in the interest of mental science that he writes, and we are entirely with him when he says, in his concluding lines, that "a psychology that can be made to harmonise with the aggregation theory must differ *toto genere* from a psychology in harmony with the specification theory."

We pass to the paper which in position stands first—a further disquisition on "*Æsthetic Evolution in Man*," by W. Grant Allen. We have said before that the writer's work is unsatisfactory; but we venture to think this essay even less logical than the rest. The question asked is, what is the primitive source of the appreciation of beauty? This he investigates in the usual fashion, beginning with the animal's delight in the colours of its mate, &c., as being the basis of "sexual selection." It does not appear to strike him that this only carries the difficulty one step further back. The æsthetic philosopher may find it a hard problem to say why Mr. Ruskin admires Venice; but he will scarcely find it an easier one to say how a twisted horn appeals to the amatory propensities of a Kudu antelope. Again, he holds the taste for beauty to be so naturally bound up with the choice of mates, that for every kind the beautiful must be "the healthy and the normal," whereas the aberrant is the ugly. If so, it follows that this æsthetic tendency must be eternally at variance with that tendency to aberration which we are told to seek the origin of species. The same number in "*Mind*" contains also an ingenious destructive criticism of Mr. Spencer's ethics, by Mr. A. W. Benn, and a sensible article on botanical classification, by Mr. Davidson, who easily succeeds in proving how badly it is at present done, and in indicating how very hard it is to do it well. The ablest paper, however, by far, is that on the Method of Kant, by Professor John Watson, an able representative in Canada of the rapidly-growing school of philosophers who believe in a transcendental theory of knowledge as opposed to the common sensationalism. The number also contains a very sympathetic review of Dr. John Caird's Lectures on the Philosophy of Religion, and another by Prof. Bain of a curious essay by Dr. R. M. Bucke (of the Asylum for the Insane, London, Ontario), the chief object of which is to consider "the physical seat of our active, moral or emotional nature," which is found in the sympathetic system.

If the October number of "*Mind*," however, is the more ably written, the January number will probably prove more attractive to our own readers. The most important article, in a philosophical sense, is Mr. Spencer's reply to his ethical critics, and in particular to Mr. Sidgwick, Prof. Means, and Mr. Benn. It is needless to say that Mr. Spencer's good opinion of his own work is not shaken by these attacks; but the little of satisfaction or light that one gleans from the paper

tempts a reviewer to quote his concluding words—that “replying to criticism is indeed a bootless undertaking.” Another not unimportant paper is that on “Illusions of Introspection,” by Mr. James Sully ; but it is a confused essay, and is much more instructive on the head of illusions which are not illusions of introspection (*e.g.*, cases of misinterpretation of things perceived) than as to those which are. The latter, if we can really use such a name without an implied contradiction in terms, belong really to a class of facts which would be better expressed by calling them false analyses of a complex state of mind ; and, as Mr. Sully remarks in that connection, the presence of a peculiar, half-unacknowledged *sub-consciousness* is very often the real source of the mistake or mis-statement.

The following paper—“Our Control of Space and Time,” by J. Venn—is a very curious speculation. The writer starts with the quaint reflection that almost all inference and all history would be unnecessary if we could move about in space and in time exactly as we pleased, and could enlarge or diminish these factors at our will and without limit. As things are, however, our knowledge and our powers of knowing are cramped on all sides. Without the power of either moving a thing which we wish to describe relatively to ourselves, or moving ourselves relatively to it, we can hardly understand even its superficial form or construction. With Time it is even worse ; for we must always go on, by a fatal and, compared with the slowness of our perceptive powers, an infinitely swift necessity. “We never step into the *same* river twice”—“nor *once* even,” as it was said in Greece. Mr. Venn regrets the great inconvenience we are at in never being able to halt or to live backward, and in illustration of the latter notion he suggests the following fancy, which is too novel to be resisted :—

“Projectiles from some of our great guns actually do outstrip the sound of their discharge. If, therefore, one of these were gifted with an ear and the requisite consciousness, the first thing which it might hear that in any way concerned itself, when it had come to rest, might be the noise of its flight through the air, followed by the sound of its own discharge, and finally the word of command to discharge it.”

The other suggestions of the writer we must leave our readers to collect for themselves, if they are attracted to this peculiar phase of “the scientific imagination.” The little sketch is full of pregnant hints, and is both philosophically and practically well worth the reading.

The January number also contains a profusion of smaller papers, which will interest the students of medical psychology. “Recent Researches in Hypnotism” (Heidenhain, Berger, and Schneider) are sketched by G. Stanley Hall, whom Prof. Heidenhain invited to Breslau to see some of his experiments ; but our readers will have gathered most of what he has to say from Dr. Tuke’s “Hypnosis Redivivus,” in our last issue. The subject is one which deserves, and is sure to receive, careful and unprejudiced attention. Mr. Stanley Hall appears to be prepossessed in favour of Prof. Berger’s more psycho-

logical explanation of the phenomena, as against that which would lay all stress on the nervous irritation alone. It would be fortunate if we could have distinctly settled, by scientific evidence, the question whether the mere *volition* of the hypnotiser (without verbal suggestion or mimetic gesture) can or cannot control the patient. Many assume that such a result is impossible; but the scientific spirit obliges us, especially in so novel and strange an inquiry, to await the facts. An *anticipatio naturæ* can only delay the discovery of the truth.

Mr. F. H. Champneys also publishes a fresh set of "Notes on an Infant," containing nothing new; Mr. Sully sends a note on the definition of "Instinctive Action;" and the editor discusses at some length Dr. Bastian's "Brain as an Organ of Mind."

Revue Philosophique, Nos. lvii. to lxii.

(Sept., 1880, to Feb., 1881.)

The French monthly is as interesting as always. In the September issue comes the conclusion of M. Parde's essay on "La Croyance et le Désir," already noticed, preceded by an interesting sketch by M. Benard of the "Theorie du Comique," as treated by the æsthetic philosophers of Germany, from Lessing to the Schlegels and Schelling. There are also two useful notes, one on "The Law of the Fusion of Similar Sensations," by A. Binet; and the other a little tale by M. D. Delaunay, of a piece of "brute reasoning" (as people are fond of calling it) on the part of a sportsman's dog. It is not, so far as we can see, materially different from the scores of other stories which every one has read. The explanation of all these facts, however, upon any theory, is a task of endless difficulty, one of the chief sources of error being the anthropomorphism with which an observer almost necessarily interprets the dog's action by the light of the motives which would actuate himself if he were in the animal's place—a sort of *petitio principii* which tends not only to bias the solution, but even to vitiate the description of the facts. Among the analyses, the best is that of Prof. Wigand's book, "Darwinismus ein Zeichen der Zeit"—a book intended to be a more or less popular redaction of a powerful and lengthy attack on the theory of "Transformism," published by the same author, who is a botanist of great repute in Germany.

The October number commences with Dr. Charles Richet's admirable paper upon "Somnambulisme Provoqué," as he prefers to name the phenomena variously known as Hypnotism, Animal Magnetism, Mesmerism, or Braidism. It is odd that he should have to begin his paper with the question, "Is there such a thing as artificial somnambulism at all?" Evidently, notwithstanding all that has been said and done, there is a great deal of *soi-disant* "scientific scepticism" afloat on this peculiar and most important question. It would be impossible to go into Dr. Richet's paper at length in this place, and no

doubt there will be other opportunities of discussing the whole subject. The paper has been already reprinted in the *Lancet*.

The analyses of the month are interesting. The first is of a useful collection of facts and documents illustrating in detail the history of "Associationism," from Hobbes and Locke onwards, by M. Luigi Ferri. The second is of an ambitious work by a St. Petersburg professor, Nicolas Grote, on the psychology of what he calls "primitive sensibility"—the transition point of physiology and psychology, in truth, according to the theory which hopes to "evolve" conscious sensation out of unconscious molecular energies, and then to evolve ideation and reason out of the whole. One is amused to find that M. Grote has summed up, in his last pages, the principles he has succeeded in establishing, which are, without doubt, the bases of any future metaphysic. Not to see the difficulties is almost as pleasant as to discover the solution.

The greater part of the November *Revue* is given up to the conclusion of Dr. Ch. Richet's essay; to a continuation of M. Th. Ribot's most careful studies of "Partial Disorders of the Memory," upon which we remarked in the last Retrospect; and to a translation of a portion of Mr. Herbert Spencer's "Political Institutions," the second part of which is continued in the December issue, where it is followed by a supplementary notice as to the fusion of similar sensations (intended to extend and correct M. Binet's article) by J. Delbœuf. But the paper of the December issue, to which we would specially direct our readers, is that from the careful pen of Gabriel Compayré, on "La Folie chez l'Enfant." For his facts and his classifications, which are always the result of conscientious study, our readers must be referred to himself; but we may be pardoned for translating a few lines of his conclusion:—

"Heredity is the most frequent cause of madness in children, although it is also the least obvious. It is not in the ill usage of a heartless step-mother, in the little deceptions of the nursery, or in the brutality of a schoolmaster, that the beginnings of the mischief are most often to be looked for. The aberration of the faculties has a deeper and more distant origin. By a sort of fatal selection, which has no conformity with that which is represented to us as the cause of the world's progress, the mischief transmits itself and grows aggravated from generation to generation. Morbid phenomena, even more than normal, manifest the force of that law of heredity which transmits the evil more easily than the good. But the character of this law must not be misunderstood. On the one hand, it is possible to combat successfully the dispositions which it transmits; the evil is not always incurable. On the other hand, it is itself but the result of the parents' free exercise of their freewill. In the life of the earlier generations, in the past history of the family, there has been a series of disordered acts, of which the later generations have to pay the penalty. There has always been a day or an hour when the fate of the whole family has

been at stake, in such a fashion that a true moral solidarity binds the parents and the children together, and that heredity, in spite of its misleading semblance of fatality, rests at its base on freedom."

In January and in February Mr. Herbert Spencer is still "dragging his slow length along." In the former number, the chief article is an attack by M. Alfred Fouillée, on the "Neo-Kantian" school in France—a powerful and growing band of students of the German masters, whose chief position is that "moral postulates" must underlie philosophy; or, in other words, that any psychology which is obliged to explain away Will and Duty fails in the first conditions of the problem. The paper following, on the "Philosophic Consequences of Modern Physics," by Ernest Naville, is vague and of little value. A review of a small *brochure* by Wundt (*Gehirn and Seele*), and of the October issue of "*Mind*," will be found in the same number.

In February, M. A. Espinas takes the place of honour with the commencement of a brilliantly written sketch of the Scottish philosophy since the beginning of the 18th century, at which epoch he roundly says "the population of Scotland was still half-barbarian." In spite of this singular introduction, his sketch of the period of Hutcheson, Adam Smith, and Hume merits all praise. Among the analyses are an exhaustive notice of the recently-published "*Vie inconsciente de l'esprit*," by E. Colsenet; an appreciative notice of Erasmus Darwin, and a *résumé* of a short work by Dr. Anton Martz, of Vienna, on the question of the historical evolution of the colour sense.

The Journal of Speculative Philosophy.

(July & October, 1880.)

The number for July opens with a rather windy article by Dr. Hutcheson Stirling, entitled a "Criticism of Kant's Main Principles." The next paper, however, is more interesting. It is by Mr. Payton Spence, entitled "Atonic Collision and Non-Collision." It sketches a curious attempt to find the beginnings of consciousness in a supposed subjective change which takes place in an atom at the moment of its collision with another.

The October number is made valuable by a paper, partly in reply to Dr. Hutcheson Stirling, on "Kant's Theory of Knowledge," by Prof. John Watson. It is a fragment of a forthcoming work, in which the writer proposes to defend Kantianism against the common scientific psychology; and, judging from the other productions of the author, there is no reason to doubt that it will be a valuable contribution to the higher philosophy.

PART IV.—NOTES AND NEWS.

QUARTERLY MEETING OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

A Quarterly Meeting of the Medico-Psychological Society was held in the Royal College of Physicians, Edinburgh, on Wednesday, the 24th November, 1880. Among those present were Drs. Campbell (chair), Brodie, Brown, Clark, Clouston, Dunlop, Fraser (Paisley), Hyslop, Ireland, Philip, Rutherford, Tuke, Turnbull, Urquhart, and Yellowlees.

The minutes of last meeting were held as read.

Dr. Fraser, of Paisley, was elected an ordinary member of the Association.

Dr. J. R. DUNLOP, Woodilee Lenzie, then read a paper on a "Case of Heredity." (See Original Articles.)

Dr. IRELAND—I see there are other diseases in this case which are associated very often with imbecility, such as phthisis, goitre, and even congenital hernia; sometimes insanity and epilepsy are associates in the same family. There is nothing more interesting than tracing these genealogies; the transmission by persons of diseases which they have never had themselves is one of the most mysterious things with which we have to do. It may be accounted for, to a certain degree, in so far as that a man who transmits disease or escapes whilst his brethren are affected, is really in danger of becoming insane during the whole of his life, but does not, because he has not been subjected to the same exciting causes which have made his less fortunate brethren or offspring insane, imbecile, or affected with other neuroses. [Dr. Ireland then submitted a pedigree which he had obtained of a similar case, about which, he said, that the principal thing to remark was that the imbecility seemed to be sent through the female line, all the children being illegitimate, and each by a different father.] I was going to remark on one feature which is generally presented by French writers like Morel that there seems to be a fatal downward tendency in these cases that undoubtedly existed in the tables published, but I believe it is by no means always the case. In some families there is a tendency to recover, and shake off the neurosis.

Dr. CLOUSTON—It has been remarked that the combination of a hereditary tendency to consumption and to insanity—say the one in the male and the other in the female—results in a very bad offspring. I cannot say that I have seen imbecility specially resulting, it being rather a want of development. There is a point that strikes one in reading such histories of imbecility, viz., that imbecility and idiocy seem to be dissociated very largely from other forms of mental disease. It is surprising how much more infrequently they are associated than *a priori* theories on the subject, and especially *Morel's* idea would lead one to imagine. The imbecile children who have insane parents are very few indeed, considering that a vast number of our asylum patients have families, and that many of them have even married neurotic partners. Such cases as this and the one we are so familiar with, which was photographed by W. A. F. Browne, seem peculiar cases. Why the woman mentioned by Dr. Ireland should have produced by four fathers four imbecile children—why the male bit of protoplasm should not have taken some effect in any one case, seems very extraordinary. We are much indebted to Dr. Dunlop for his paper. Such papers are much needed, as the heredity of the neurosis is one of the subjects which offer a very great field for future investigation.

Dr. BRODIE—One expects that the criminal class rather than the insane would be the progenitors of the imbecile, and it would have been interesting had it been possible to get the histories in detail of the sane members of this family as to whether there was any criminal phase in the various careers.

Among the side issues of imbecility, criminality comes up in some force. There was an instance of this in the deplorable murder of a gamekeeper and his wife at Chislehurst, where the prisoner's mother knowing his tendencies had been afraid of him from infancy.

Dr. YELLOWLEES—This seems rather a case of transmitted brain defect than brain disease. In a family which runs to seed you would find altogether a different state of matters from this. Mental instability, not moral obliquity, would show itself in some members. One would be a ne'er-do-well, another would die of diabetes, another of brain disease or acute maniacal attacks in early life, another of phthisis, while another would be a genius, or probably some brilliant specimen of eccentricity.

The CHAIRMAN—I have noticed often that when a number of children in a family are imbecile, many of them are very liable to take attacks of acute excitement. There seems to have been nothing of this sort among this large family of imbeciles. Another thing I noticed in this tree was that a reasonable time elapsed between the birth of the different children, so that there seems to have been no excessive drain on the mother's health to account for these defects.

On the motion of the CHAIRMAN, the thanks of the meeting were awarded Dr. Dunlop for his paper.

Dr. BRODIE then read a paper "On the Conditions Necessary for the Successful Treatment of Imbeciles." (See Original Articles.)

The CHAIRMAN—I find imbeciles the most difficult cases I have to deal with. It would be much better if they were taken in hand and treated at the proper time in their lives than kept at home untrained and sent to County Asylums, where one does not get them until they cannot be dealt with at home, and then it is generally too late to teach them habits of cleanliness, or how to conduct themselves properly. I think it a very great mistake that in some institutions only educable lunatics are admitted, and if ever there are district training institutions for imbeciles all should be taken in.

Dr. IRELAND—I have listened with the highest pleasure to Dr. Brodie's paper. There is no authority in Scotland equal to Dr. Brodie on the education of imbeciles, and no one in Great Britain has so steadily advocated their cause both by his pen and his voice. Looking at things from different standpoints he and I might have some disagreements, but I may say he carried me with him throughout his paper. I think the question is pretty much the same as between private teaching and school teaching. We know certain men have a great capacity for teaching, and can produce better results with two or three pupils than with fifty. At the same time no one would propose to abolish our great educational institutions, because a sufficient number of men specially fitted for private teaching cannot be had. I agree with Dr. Brodie as to the necessity of an adequate staff of teachers, and this will probably be one of the difficulties in connection with District Imbecile Schools; they will not consider it worth while to have, say three teachers for fifty idiots, and pay them as well as a School Board.

Dr. YELLOWLEES thought the questions between home and institutional care depended entirely upon the kind of case and the kind of guardianship which can be secured. Some do better at home and others do better in an institution, and some cases which, perhaps, might be cared for best at home have to be sent to an institution because we can't get the ideal home care that the case really wants. For the same reason it does not seem to me possible to assign any limit to the number which should be in any institution. A large proportion cannot be benefited at all, and all that can be done for them is to look after their health and comfort. If this class is to be received into special institutions, as it must be to meet the public needs, I do not see that there should be any such limit as fifty. On the other hand, dealing with educable imbeciles, I can quite understand that fifty might be too large a number.

Dr. CLOUSTON—We all know how able Dr. Brodie is to give us some light

on this subject. The first point that struck me in this paper is, how are you to know the educable imbeciles unless you try them in some institution? What are we to do with the uneducable class which amount to three-fourths of the whole? Regarding the educating of imbeciles at the public expense, I think utilitarian philosophers would be very ready to ask, *Cui bono*. The usual argument for educating ordinary youth is that they may become useful members of society, to constitute the body politic of the State. I do not think anyone would say it makes much difference to the State whether imbeciles are educated or not. Therefore it resolves itself into a philanthropic question. Again, how are we to manage in regard to country districts? There is not a sufficient number of imbeciles, not to speak of educable imbeciles, in the country districts to support a school or teacher. They cannot be brought together every day like ordinary school children. This implies that they should be boarded. Now the State does not pretend to board ordinary children, but simply to educate them. I am afraid the boarding as well as the educating of imbeciles would be rather a difficult pill for some of our politicians and economists to swallow.

Dr. YELLOWLEES—Why worse than for incurable lunatics?

Dr. BRODIE—And it is done in America.

The CHAIRMAN—When they pass a certain limit.

Dr. YELLOWLEES—Why not before?

Dr. CLOUSTON—I was perhaps arguing on the opposite side of the question, so as to bring out the difficulties as well as the desirable points. In regard to teachers I do not think men of the philanthropic spirit which Dr. Brodie describes exist in such numbers as to be available for the enormous mass of imbeciles. I cannot imagine the country divided up into schools of fifty each, and being able to get men to look after these fifty who would be fit for the work, even if they could get sufficient remuneration.

Dr. RUTHERFORD—Nearly all the imbeciles I have are very gentle, harmless creatures. They have, however, nearly all been transferred from other institutions, and their quietness is no doubt the result of education at Larbert and other places.

Dr. BRODIE—I think I may be allowed to remind the meeting that my remarks were strictly in the direction of the educable imbeciles. The uneducable are too difficult a class for all our combined wisdom. I think it could be determined before, without difficulty, whether a child were educable, though we are not invariably correct in our judgment. We form our opinion from judging of its endowments, speech, capacity for behaviour, special developments, and whatever naughtiness may have been developed. As to the consideration of cost, the scheme cannot be worked out without considerable outlay, but we must bear in mind that the uneducated imbeciles at the present entail a very heavy cost on the country, and then we are to remember that a large proportion of our pauperism, illegitimacy and criminality, is distinctly associated with imbeciles. If we look at the matter soberly we should find it to be not a bad bargain to lay out a considerably greater expenditure than at present. I am gratified to find that the subject has attracted attention.

The thanks of the meeting were awarded Dr. Brodie for his paper.

Dr. CLOUSTON gave a *vivà voce* description of a visit he had lately paid to some asylums for the insane in the United States. He described the new institutions at Morristown, New Jersey, and at Danvers, Massachusetts, which embodied the latest American ideas as to asylum construction. They were both enormously expensive, the cost in each case being about £750 per bed. The architecture and construction, the heating and ventilating, the kitchens and laundries, are superb; but in Dr. Clouston's opinion there was far too great uniformity of construction, arrangement, and furnishing, one ward being very much like another throughout. Too little attempt had been made to adapt the house to the varying mental state of the inhabitant. The universality of the double row of rooms on each side of a corridor was also disapproved of, as

well as the lack of dormitory accommodation. Practically all the patients at Morristown have single sleeping rooms. Dr. Clouston commended the great allowance of space for each patient. It amounted to about double the British allowance in County Asylums. He spoke most highly too of the dietary in America, but preferred the British system of patients dining in a common dining hall near the kitchen. In Dr. Clouston's opinion the patients in American asylums don't spend a sufficient time each day in the fresh air, a large number even when out being entirely confined to the numerous small high-walled airing courts, and they are not kept sufficiently employed, and in consequence are more discontented and need more restraint than we use here. He praised highly the philanthropic and liberal spirit that prevailed in America in regard to the making of provision for the insane. He spoke of his visits to the Utica, Hartford, Philadelphia, Boston, and Bloomingdale Asylums; the pleasure he had enjoyed in seeing those institutions, the kindness with which he had been received, and the ability and high character, as well as the earnest benevolent spirit, of the Physician Superintendents of all those institutions. He condemned the tendency in some parts of America to mix up the management of asylums with current politics.

The meeting passed a cordial vote of thanks to the College of Physicians for the use of the room, on the motion of the CHAIRMAN.

The Members afterwards dined together at the Edinburgh Hotel.

SCOTTISH NATIONAL INSTITUTION FOR THE EDUCATION OF IMBECILE CHILDREN, LARBERT.—DR. IRELAND'S RETIREMENT.

From Dr. Ireland's report we observe that there are in this Institution 78 males and 46 females—124 in all. During last year there were 27 admissions, 16 discharges, and one death. This, with a daily average of 119 inmates, shows a death-rate of '83. Dr. Ireland, who is about to leave Larbert, after ten years' superintendence, gives an interesting review of the period. There were in 1871, 73 inmates. There have been 263 admissions, 184 discharges, and 15 deaths, giving a mean population of 100, and an annual mortality of 1·5 for the decennium.

The kinder-garten system has been found of great use, and since his visit to the States Dr. Ireland has given increased attention to training the muscles, through gymnastic exercises and the exercise of the senses. The following is well put :—

"It were much easier to dress the children like dolls and to keep them confined and miserable lest they should dirty their clothes, instead of allowing them scope and liberty, so that their intelligence and volition should have free play. I have always insisted that efforts should be made to teach even the least hopeful cases. An asylum full of idiots in which there were no teaching and no progress would be like a marsh which takes in and accumulates everything noisome and pestilential, and gives out nothing."

Dr. Ireland anticipates the question, What has become of the 184 discharged idiots? He replies, six went to asylums as insane or unmanageable; others drifted later into the same refuge, because there was no one willing to look after them. He thinks it likely he heard least of those who were getting on best. Of those who left there were few in whom there was no improvement. In about half it was very decided, and in about five or six per cent. the improvement seemed to approach recovery. He recalls fourteen young men who were fit to earn their bread, mostly as gardeners; only six are actually known to have found employment. Those who leave generally wish to return to an institution where they have been sheltered from the world. We had intended to quote Dr. Ireland's speech given at the New Year's entertainment to the

Institution, but want of space forbids. We will only add, in heartily wishing Dr. Ireland success wherever he may pitch his tent in the future, that we are glad to observe that the Directors have, in recognition of his "valuable services," agreed to present him with £500.

Correspondence.

LETTER FROM W. C. HILLS, M.D., NORFOLK COUNTY ASYLUM, THORPE.

THE "LAISSEZ-ALLER" TREATMENT OF THE INSANE.

To the Editors of THE JOURNAL OF MENTAL SCIENCE.

GENTLEMEN,—In common, probably, with many others, I have read Dr. Davies' paper in the last number of the Journal with interest and surprise. To me, indeed, it had a peculiar interest, as I resided for years as second medical officer in the asylum of which now Dr. Davies is the head, and know how much room there was for improvement in many of the patients. As I have now lived in asylums for more than a quarter of a century, it may be that I am getting somewhat "old fashioned" in my notions, but I am always ready to learn, and, therefore, turned with eagerness to Dr. Davies paper to discover what was "the restorative or rational system" on which "all the patients are now treated" at Barming Heath. I can, however, only see that it consists in doing nothing. Cold water and no physic—this is the golden rule. I think this might be called the "*laissez-aller*" treatment, not unfairly, and I hope other Superintendents may express their opinion on it.

Dr. Davies, not content with "the comparative calm" he has secured in his wards, is anxious to deride the giving of sedatives, and borrows the offensive nickname of "chemical restraint" to characterise what is a very general practise with his medical brethren. I think it doubtful whether he strengthens his case by such tactics, and I should have preferred more information as to the "rational system," whose negative side is alone presented to us. I am not an advocate for the routine use of sedative drugs, and do not consider chloral as any "sheet-anchor," or even an "unmixed blessing," but my experience tells me that I have often found such things give calm sleep and repose to an excited patient and promote recovery. The noise and excitement of maniacal cases are symptoms of a disease, and it seems to me quite as rational to treat such symptoms as to give paregoric for a cough. If patients were kept constantly stupified by drugs simply to keep them quiet, I can imagine "chemical restraint" a proper term to apply to such a proceeding; but I will not suppose Dr. Davies wishes to libel his professional brethren by such a suggestion. Nor can I suppose that he implies that such other means, as employment, exercise, recreation, and kindness are unknown in other asylums. If so, what remains in the way of treatment to constitute his new "rational" system? We are not informed. As Dr. Davies wishes to know how many patients are taking "soothing" medicines in other asylums, I will reveal the secrets of this asylum, and say that this day there were six males and fourteen females taking sedatives of some kind out of a total of 620, and that on an average eighteen to twenty doses are administered daily. I call this rational medical treatment, and though I should be glad to know of a better, I fail to find any indications of it in Dr. Davies' paper, except it be doing nothing! On the other point raised I am more inclined to agree with Dr. Davies—viz., the use of alcohol—but I cannot see that the omission of a pint of weak beer from the day's diet of a lunatic can make any great difference in his excitement. I agree that patients can do without it without injury in most cases, but to ascribe such good results to absence of small beer, containing but 4 per cent. only of alcohol, seems to

me making a great claim on one's credulity. I have made the experiment in my own wards, and say deliberately that I have not found any difference in the noise or excitement. Eight years ago I abandoned the use of beer among 160 patients of various classes as an experiment, and found that none lost flesh or strength, and none of them seemed worse. For the last year no beer has been given in the ordinary diet, except to the workers, at 11 and 4 o'clock, and the patients have acquiesced in the change very readily. I have, apparently, only to abandon drugs to inaugurate the Kent system; but if this is the one thing needful, what will be left for a medical man to do, and why should one be required in an asylum, except for the study of pathology? I feel already I may be one of the "mistakes" that will "at no distant date be scouted with equal derision" to that which we now heap "on chemical restraint" and "alcohol," but I am one of many! At all events, in my present unconverted state, I may venture to say that I think the abatement of noise, excitement, or destructiveness in a patient as a favourable symptom, and one tending to recovery or improvement, and that I am glad to produce such a result even by sedatives.

Yours, &c.,

W. C. HILLS.

Thorpe, February, 1881.

 INTERNATIONAL MEDICAL CONGRESS, 1881.

SECTION VIII.—MENTAL DISEASES.

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Proposed List of Subjects for Discussion.

ANATOMY.

1. Modes of Preparation of Nervous Tissue.
2. Morbid Appearances due to Modes of Preparation.
3. Minute Structure of Special Parts of Brain.

ANATOMIE.

1. Méthodes de préparation des tissus nerveux.
2. Apparences morbides occasionnées par les méthodes de préparation.
3. Structures microscopiques des parties spéciales du cerveau.

ANATOMIE.

1. Die verschiedenen Methoden zur Darstellung von Nervenpräparaten.
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1. Relation of Cerebral Localization to Mental Symptoms as Hallucinations.

2. Hypnotism.

PATHOLOGY.

1. Of Idiocy, Morphological, Histological Changes.

2. Relations of Insanity to Gout, Renal Diseases, Exophthalmic Goitre, and to Coarse Brain Disease.

CLINIC.

1. "Folie à double Forme."
2. Influence of Intercurrent Diseases on Insanity.
3. Insanity due to Toxic Agents.

THERAPEUTICS.

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ASYLUM ADMINISTRATION.

1. Cottage and Village Treatment.
2. New Legal Codes, Austrian, Italian, and English Projects.

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CRIMINAL RELATIONS OF THE INSANE.

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2. Hypnotisme.

PATHOLOGIE.

1. L'Idiotisme et ses caractères histologiques et morphologiques.

2. Rapport entre la folie et la goutte, les maladies rénales, le goitre exophthalmique et les autres maladies du cerveau.

CLINIQUE.

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2. Influence des maladies incidentes sur la folie.
3. Folies causées par des agents toxiques.

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1. De l'emploi des bains, des narcotiques, de l'hydrate de chloral, de l'opium, de l'alcool.
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RELATIONS CIVILES DES ALIÉNÉS.

1. Mariage. Validité des testaments.
2. La Folie et L'Aphasie.

RELATIONS CRIMINELLES DES ALIÉNÉS.

Des Asiles spéciaux pour les aliénés criminels.

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2. Das Verhältniss der Geisteskrankheiten zur Gicht, zu den Nierenkrankheiten, zur Basedow'schen Krankheit und zu gröberen Erkrankungen des Gehirns.

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2. Neue und selten angewendete Mittel.

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DIE STELLUNG DER IRREN ZUM CIVILRECHT.

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DIE STELLUNG DER IRREN ZUM CRIMINALRECHT.

Besondere Irrenanstalten für geisteskranke Verbrecher.

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Appointments.

BLAKESLEY, H. J., M.R.C.S.E., to be Assistant Medical Officer to the Leicestershire and Rutland Asylum.

CARRE, G. E., M.B., L.R.C.S.I., to be Medical Superintendent of the Omagh District Asylum.

HALL, J. G., M.B., C.M., to be fourth Surgeon to the Aberdeen Royal Infirmary and Lunatic Asylum.

HIGGINS, W. H., M.B. and C.M., M.R.C.S.E., to be Medical Superintendent of the Leicestershire and Rutland Asylum, vice J. Buck, M.R.C.S.E., deceased. (Mr. Buck was Superintendent 28 years, and died aged 64.)

HYSLOP, J., M.B., C.M., to be Assistant Physician to the Royal Edinburgh Asylum, Morningside.

JONES, R., M.B., to be Assistant Medical Officer to the Earlswood Asylum, vice Dr. Spence.

LYLE, THOMAS, M.D., to be Medical Superintendent of the new asylum for Birmingham, at Rubery Hill, near Bromsgrove, Worcestershire.

PADDISON, E. H., M.B., to be Junior Assistant Medical Officer to the Surrey County Asylum, vice Hosking, resigned.

PULLON, GEORGE S., M.B., C.M. Edin., to be Assistant Medical Officer, Perth District Asylum, Murthly.

ANNUAL MEETING OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION, 1881.

The ANNUAL MEETING will be held in London, on Tuesday, August 2nd, 1881. Place of meeting, &c., will be announced in the July number.

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PART 1.—ORIGINAL ARTICLES.

Moral Insanity. By GEO. H. SAVAGE, M.D., Medical Superintendent of Bethlem Hospital.

The subject of moral insanity has already been considered from several points of view, but I think that when typical cases occur it is well to record them, so that, by a careful examination of published cases, more general information may be obtained concerning this malady. It may seem to the philosopher rather a mistaken way of considering the mind to divide it into intellectual and moral, but we in asylums have constantly to take notice of cases in which the moral side of the patient suffers very much more than the intellectual; and though I should not deem any person capable of being intellectually complete and yet morally defective, I would maintain that the defect on the intellectual side may be so little appreciated, or of so little importance in reference to the individual's relationships with the outer world, that it may be disregarded. In considering the cases at present under notice we shall have to point out that most of them have undoubtedly some defect or excess, if I may use the term, in their intellectual processes. When I say excess I refer to the presence of hallucinations and false perceptions that frequently occur in such cases. In attempting to define moral insanity it is easier to describe what it is not than to come to a comprehensive definition which will include all the cases falling into this group, and no others; and, by way of clearing up the condition, I would say that I look upon the moral relationships, so called, of the individual, as among the highest of his mental possessions, that long after the evolution of the mere organic lower parts, the moral side of man developed; that the recognition of property and of right in property developed with the appreciation of the value of human life, so that the con-

trol of one's passions, and of one's desires for possession, and of one's passion for power developed quite late in man, and, as might be expected, the last and highest acquisitions are those which are lost most readily. It is frequently noticed that in cases in which slow progressive nervous change takes place the moral relationships are the first, or among the first, to be affected; and in the same way after an intellectual storm it is no uncommon thing to see the intellect partly restored to its normal equilibrium, but still wanting the highest and most humane of its attributes—high moral control; so in the emotional states of acute mania, of general paralysis, or of chronic insanity we have corresponding defects in this highest intellectual control. From this point we shall have to notice moral insanity, it being in many cases a state or stage of mental disease, and not a fixed or permanent condition itself; so that in very many, if not in all, acute cases of insanity there is a period of moral perversion, just as in nearly all such cases there is a period of mental depression. I hardly think it worth my while to make very elaborate distinctions between the varieties of moral insanity. I would take it for granted that all admit what I have already said—that there is a condition in which the moral nature or the moral side of the character is affected greatly in excess of the intellectual side—and I will take the opportunity in this paper of discussing in detail a few of such cases, leaving for myself at another time, or for others, the consideration of cases bearing on the other parts of the subject. I should say that the cases of moral insanity are best considered under the heads of “primary” or “secondary,” and when speaking of “primary” I would refer to those cases which, from the first development, have some peculiarity or eccentricity of character exhibited purely on their social side. Such cases may be divided into the morally eccentric and the truly insane. The eccentric person who neglects his relationship to his fellow men and to the society and social position into which he was born must be looked upon as morally insane. Other cases seem from infancy prone to wickedness, and I would most emphatically state my belief that very many so-called spoiled children are nothing more nor less than children who are morally of unsound mind, and that the spoiled child owes quite as much to his inheritance as to his education. In many cases, doubtless, the parent who begets a nervous child is very likely to further spoil such child by bad or unsuitable education. In considering these latter cases—those that from childhood show some

peculiarity of temper and character—it is all-important to remember that inheritance of neurosis plays a very prominent part indeed—that, in fact, the inheritance of neurosis may mean that the children are naturally unstable and unfitted to control their lower natures; that they come into the world unfitted to suit themselves to their surroundings; and, but for the conventional states of society, would soon lose their places and become exterminated. We shall, later, consider cases of this kind more in detail, but I would state before leaving the subject of primary moral insanity as seen in children, that I have seen a state of this kind occur in children of parents who have suffered from some febrile disease, or some constitutional disease like syphilis, before the begetting of the morally insane child, and I have no doubt that more will be discovered in time as to the relationship between the health of the parent at the time of the begetting and the moral state of the offspring.

In speaking of secondary moral insanity I would say that it may be secondary to some distinct attack of mental disease, or the condition may be secondary to some more general cause, such as intoxication; and in referring to intoxication it should be noted that not only is it a sign of moral insanity in many cases, but that it also produces it. With cases of this latter kind might be classed some that seem to me to have resulted from other acute febrile diseases, and I believe that I have seen one or two well-marked instances of moral insanity following upon an attack of febrile disease; so that a person, having suffered from a severe attack of rheumatic fever, became altogether morally perverse. As to the first class of this sub-division—those in which the moral insanity is secondary to some other attack of mental disease—many writers have already recognised this condition. Dr. Bucknill, years ago, considered such cases, as did Prichard, as always following some attack of insanity. On the other hand, as I have said, I am rather of opinion that some cases may come on primarily, though I admit that the majority of these cases must be considered as the wrecks left by the mental storm. Before speaking more fully of some of these cases I would point out that it is important that they should be recognised by the legal as well as by the medical profession. I am not one who would allow every person who has lost self-control through disease to escape punishment, but it is surely worthy of consideration whether these classes of morally insane patients should not be treated in an intermediate manner—neither with

the severity of the gaol nor with the comparative luxury of the asylum. I am quite certain that some can only be properly dealt with by being treated with a firm hand. As seen in children, the primary moral insanity may be due almost entirely to inheritance of neurosis, or it may be due to some physical disease. It has probably been associated in some cases with a condition that has ended in tubercular disease either in the brain or lungs; in fact, the patients are to be considered unstable from birth. Undoubtedly injury or bad treatment may have had something to do with their condition. In cases of this kind it is not very uncommon to find some genius, or, at all events, some precocity, and in some morally insane children one is disgusted to find not only precocity in some lines of intellectual life, but a precocity of the animal passions also. Sexual desires are developed at an unusually early—in fact, sometimes at an infantine—age. The moral insanity may show itself before five years of age, though this is rare. In my experience it is seen to come on in these cases between five and ten. I have seen two cases, born of patients who were in Bethlem while they were pregnant, so that the children were saturated with insanity while still in the womb. The mothers told me that these infants seemed to be perfect little devils from birth. In both cases the mothers had had other children, and were well acquainted with the ordinary troubles of maternity, but the children which they bore after they themselves had been insane were the most fretful, the most exacting, and the most restless that they had ever had any experience of. The prospect of life in these children was, however, so small that there was a speedy issue to the terrible troubles that I believe might be considered as the earliest examples of moral insanity. I may be thought to be going rather far in attributing morality to infants, but I think that as a complete investigation of these cases is required, it is better to record such facts as the above, putting my own interpretation upon them, and allowing my readers the same privilege, so they may agree with me these infants were suffering from moral perversion or not, as they please. The morally insane child generally begins to evidence the fact by persistent lying, and I have seen one or two instructive cases in which the power of romancing as a genius and the power or habit of lying was scarcely to be distinguished. In one case I was consulted by a father, a most honest and straightforward man, who was almost heartbroken because his only daughter—he having four healthy and normal-minded sons—could not, as he

expressed it, tell the truth; but when, on investigation, I enquired whether she told lies to her own advantage or to the advantage of other people, I found that nothing of the sort was the case, but that she had a habit of romancing, and on every available occasion would tell her parents the most extraordinary tales of her adventures, and of the people whom she had met, and what they said to her, without malice and without truth. In other cases the lying is of a lower order, so that the child lies either to damage those who are injurious to him or against whom he has a spite, or he lies on every occasion to cover his faults or to escape well-merited punishment. These, of course, are very natural failings of all children, but the morally insane child does it persistently, and with such wonderful power that he lies like truth. At the same time that the child takes to lying he probably takes also to stealing. These two are the most common, and one is associated with the other in so far that the child steals, and lies to conceal his thefts. Another class of patients take to cruelty, and become not only bullies but unmitigated brutes, torturing anything in their power, beginning with the smaller animals and birds, and gradually, as they gain confidence, torturing their school-fellows. This last type of boy not uncommonly developes further—into the masturbator, and in this capacity works endless harm in schools, taking all sorts of advantages over smaller and weaker children. In some cases I have seen the children develop so-called pyromania, and one boy, whose case I knew, set fire to every house that he was sent to after he had been there for a short time. In other cases the same thing has happened, and without rhyme or reason, and often for the mere love of seeing a blaze. These people will set light to house, church, or haystack. In the more truly morally insane it seems to be done out of spite or malice, and not absolutely wantonly, but no amount of teaching, training, or threatening seems sufficient to prevent these patients following out their evil ways. To my mind, one of the most marked characteristics of this state is the fact that experience of punishment does not seem to affect them; so that the boy punished to-day will repeat his crime to-morrow, and if he learns anything, it is only to be more deeply cunning or more completely brutal. In tracing the development of these symptoms I have noticed the relative periods at which they appear. At puberty, often, children who have been morally insane before, but controllable, become quite uncontrollable; and I have seen several cases in which such patients had to be secluded shortly after the age of

puberty in consequence of their disgusting and lascivious conduct. In one or more cases I have seen education, home life, and careful discipline work a slight improvement in young cases, and by punishing and watching some good has been done up to the time of puberty, but then, as it were, the whole thing was started afresh, and the result was disastrous. The chief characteristic of the moral insanity of pubescence is the uncontrolled sexual passion exhibiting itself in self-abuse, unrestrained sexual intercourse, even with near relations, and bestiality of the lowest description. Cases of this kind find their way into asylums, or what surprises me more, in not a few cases into private houses, where they are a constant source of anxiety and trouble. But patients of this kind are always objected to, whether in private or public asylums, and are, therefore, thus forced into private care. The disease, fortunately, does not often last, in a very active stage, long, and the patients may become exhausted by their vices or chronic and less ingenious in their exercise of them. Later on in life one would have to consider the adult moral lunatic, and I fear that it is almost impossible to draw a definite line between the criminal and the person who is more truly morally insane—between the man who ought to be punished and the man who ought not necessarily to be punished, but who certainly ought to be treated. In this last class we meet patients who at adult age develop tendencies to crime and to vice. We see those who take to drink without any education or without any special liking either for the state of drunkenness or the process of getting drunk; we see cases in which the offspring of nervous patients—and I would refer to one patient who was the son of a mother who suffered for years from *paralysis agitans*. This patient had, at about 21 or 22 years of age, developed a typical craving for drink. Instead of going out and enjoying the society of his fellows or of sitting quietly sipping the drink for a whole evening, he would, when the loss of control exhibited itself, go to the nearest public-house or the nearest source of intoxicating drink and pour it down as quickly as ever he could, only stopping when he was too drunk to help himself further; and he would say on recovery that he had no pleasure whatever in getting drunk, and that he had no power of preventing himself from doing so. When this passion for drink came on he would, although secluded in a retreat, prove himself to be morally perverse in every sense of the word. He would lie, steal, forge, or do anything that was improper in order to gain his end. Such cases, or similar ones, form a class of

ne'er-do-wells. Besides these, we must notice that there are certain patients in whom the moral loss is only slightly in excess of the intellectual. There are badly-built minds—if one may use the expression—minds in which the parts are not well and compactly built together, and in which one function—say, the musical, or the mathematical—may be predominant. You may have a musical genius or a calculating boy, one part of whose mind seems to have suffered or to have been developed at the expense of other parts. Such cases are sometimes morally insane. I have seen one man, of a highly nervous stock, who had plenty of ability with his fingers; in fact, it seemed as if his fingers had got all the brains, and that the rest of him was starving. With every opportunity of doing well and of succeeding in life, he always failed. That he failed seemed to me due to his nervous inheritance—his want of moral control, which in his case was distinctly the result of a neurotic inheritance, and which could not be replaced, even by the most careful education. Such cases, then, must be considered as connecting links between those who are distinctly, and, I may say, completely morally insane, and those who are only on the borderland between crime and insanity. I am in doubt as to whether I ought not to consider under this head separate classes, but having already referred to kleptomania, oinomania, and homicidal mania, it is scarcely worth further subdividing, for the symptoms are rather accidents of the surroundings than any essential part of the disease itself. Thus it is easy enough to speak of cases of homicidal insanity as cases of loss of moral control. In some of these cases—such as are developed out of the cruel children—it seems to be a moral defect, but in certain others it scarcely deserves to be considered apart from crime, for the patients know intellectually the harm they are doing, and have not sufficiently striven to curb their impulses to destruction. Undoubtedly, if the person knows the evil of his crime, knows also his tendency to commit that crime, and yet, with all his education and endeavours, cannot prevent himself from committing it, he is scarcely to be considered morally responsible; but at the same time it is going rather far to consider such patients morally insane. We have at the present time in Bethlem a lady of mixed race, and of a very emotional nervous temperament, who has suffered from neuralgia of one kind and another, and from severe trouble. She attempted to injure a lady of distinction, and has never been convinced that her crime was a crime; and though at first it was difficult to satisfy one's self of her true

unsoundness of mind, yet I am now fully persuaded, from her conduct in relationship to other patients, that she is not trustworthy at large, and that if discharged she would certainly cause some grievous crime. In her case other neuroses are exhibited. There is some history in the family of a neurotic tendency, and there is an uncontrolled and unreasonable jealousy that would lead her to injure any object of which she might be jealous, without regard to consequences. I do not believe that any amount of suffering or any amount of experience would prevent this lady from injuring any one of whom she was jealous. Certain others—by far the most difficult to handle—are those in whom the intellectual powers seem to be intact, but in whom the social relationships are not fully appreciated. One sees this type most commonly in patients who have suffered from insanity. My own feeling is that it follows more commonly in those who have insane inheritance, and upon attacks of mania than attacks of melancholia. It exhibits itself in loss of self-control, loss of temper and industry. Probably the most common is to be looked upon as a kind of partial moral dementia. The patients neglect their business, their duties, and their rights, so that they would willingly allow their nearest and formerly dearest relations to suffer in consequence of their laziness; and this they fully appreciate, but fold their hands and do nothing. In some of these cases, technically one may say there is a want of will, a want of power to balance motives. It is not merely a want of memory, a want of perception that if they do not act in the present they will starve in the future, but there seems to be a moral languor that prevents them acting, though they thoroughly appreciate what is said to them. You may tell them that they will go to the Workhouse, and they say, "Oh, yes," or, "We won't come to that, I hope;" but they fold their hands and let happen what may. Cases of this kind, or in this stage, may take to drink, so that we have very complicated cases admitted or readmitted into asylums—patients who, having had an attack of insanity, get well, then break down on their moral side, neglect their business or take to drink, get into bad health and bad social conditions, which produce a fresh attack of mental unsoundness, in which the causes of the outbreak have been very mixed. In some of these cases the moral change is seen in the dislike to family ties, in dislike of wife to husband or of mother to children. One has been surprised that upon sending a patient home to her husband after an attack of insanity she has declined to

have any further connection with him, and seemed to have lost all her former inclinations towards him; that in another case a mother, who had been industrious, active, and painstaking towards her children, neglected them, occupied herself in religious observances, or expended a fair amount of energy in looking after other people or their children, leaving her own to starvation and the streets. All these are difficult cases to handle, but they are ones to be recognised; and they are cases that, unfortunately, from my experience, are very unfavourable as far as prognosis goes. In a certain number of cases the moral side of the man seems to be entirely altered through the intellectual; so that a man having delusions of hallucinations telling him that he is to be rich, or the Saviour of the world, or is to take twenty wives, may very naturally change his whole habits of life, and become the indolent man, waiting for something to turn up, the prophet that is to convert the world, or the founder of a religious sect. These cases have to be considered from a different standpoint to those we have already noticed. They puzzle one from their general intellectual ability, their chief failing being a want of appreciation that there has been any intellectual loss in themselves. That they have been insane is to them doubtful or untrue. They think that their friends have treated them badly, and naturally feel inclined to act in an unfriendly way towards these relations. Some of these cases cause more anxiety and trouble in asylums than is ordinarily conceived, for they are patients who belie the general belief as to combination. Patients of this kind will not only combine with other patients, but they will organise the others, and in every way endeavour to prevent their doing useful or even necessary work, and are constant obstructives to the discipline as well as to the cure of other patients. The fact has to be recognised that a certain number of patients have moral insanity. As a rule, I should say that moral insanity is associated with intellectual insanity, being either a stage of its onset or a stage of its recovery—a stage of recovery, unfortunately, that may never be completely recovered from; that this moral insanity may be a primary disease, coming on with childhood; that it may be secondary to mental disease; that it may be secondary to physical disease; that it may be simple—*i.e.*, with little or with no intellectual loss—and may be compounded with every variety of intellectual loss; and that when it occurs as the residuum after an attack of insanity, and lasts for twelve months, the prospect of any future improvement is small in the extreme.

*The Means of Determining Causation in Insanity.** By
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At the last meeting of this Association, it was seen that great discrepancy of opinion existed as to the value of tables of causation in insanity. On the one hand they were regarded as of the first importance; and on this ground a plea was put forward for unanimity in the mode of tabulation. On the other hand they were looked on as worthless, or almost so; and some applause followed when they were characterised as rubbish heaps.

Such widely divergent opinions on a subject of this nature should have no place amongst us. The matter should be sifted. If the tables at present in use are untrustworthy, the grounds on which they are discredited should be fully set out. To know where the fault lies often is enough to indicate the remedy.

The object of this paper is to point out some of the sources of fallacy that vitiate our tables of causation, and to make a suggestion or two towards putting the matter on a better footing.

The subject is a complicated and abstruse one, requiring not merely a large amount of practical knowledge, but some acquaintance with the most difficult portion of the theory of inference, Probability or the Logic of Chance. And it is not an easy matter to cast a glow of interest over a subject consisting chiefly of abstract questions of calculation, and to explain clearly problems so heavily burdened with inherent difficulty. But its importance, I think, warrants its being laid before you.

The sources of fallacy in statistics, as in every other department of knowledge, are twofold—errors in observation and errors in inference. The source of the distrust in the Commissioners' tables of causation, that was displayed here on the last occasion, appeared mainly to be the imperfect and haphazard way in which statements of causation are made in the certificates on which the tables are, to some extent, based. Another fault was alleged—that the plurality of causes was overlooked.

There is no question that the statement of the "supposed cause" in the certificate is of the most untrustworthy char-

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acter. Persons who by lack of education and by lack of the knowledge of the causes of insanity in general are quite incompetent to form a sound judgment, are called upon to determine the cause in some particular instance. It is obvious that in some cases their opinion will be formed according to a preconceived theory of what should cause insanity. I know a lady, for example, who traces her son's insanity to his not having said his prayers; while she makes little account of heredity and a strongly marked neurotic predisposition. Even in published statistics I have seen tight lacing set down as a cause. Moreover, the friends of the patient generally consult appearances. Reluctance is shown to ascribing the insanity to vice or to anything that might reflect discredit on the patient or his family; and if there are two or three causes to choose from only the most respectable is put down.

Another source of inaccuracy, not less serious, is carelessness. That errors frequently spring from this source, does not, I think, admit of reasonable doubt. Apart from ignorance of the causes of insanity generally, preconceived theory, and the bias of respectability, there will be found many cases where the only reason that can be assigned for putting down the wrong cause instead of the right one, is negligence or carelessness. The people by whom the statement is made often seem to look on it only as a matter of form. Hence it happens that in a large number of cases the cause is put down either in a haphazard way or is returned as unknown. It is true that the Commissioners' tables are framed from the reports of the asylum physicians. But it is equally true that in a large number of cases these reports are based on the statement that accompanies the certificate.

But in order to get accurate facts, and to draw just conclusions, it is necessary not merely to get rid of the sources of error that have been enumerated. Another radical fault pervades the present mode of obtaining our knowledge of the subject. The person that gives us our information about the patient is not merely required to state a fact; he is asked to make an inference, or rather to guess an inference, to state what he supposes to be the cause.

It may be just as well to mention now, by way of reminder, how causation may be proved.

Dr. Savage, in depreciating our present method of determining causation, considered that the only sound course was to select examples where some definite cause could be shown to have produced the disease; cases for instance where gout was

followed by insanity. In simple subjects of investigation such a method is undoubtedly the correct one. The one thing needful to the successful application of it is that there should not be present any other element capable of bringing about the given condition of things. We should be able to show, not merely that the supposed cause was followed by the effect, but that no other change than the introduction of the supposed cause was made in the series of events.

It is easy to see that in so complicated a machine as the human body we can rarely indeed have the required assurance. Even in cases where there is well marked alternation between the mental symptoms and the bodily ailment, we cannot with certainty affirm causal relation. Such alternation may, as in the case of the alternation of day and night, be dependent on other causes.

This method can, indeed, do little more than suggest causes; the value of the suggestion to be afterwards tested by a more trustworthy plan. In fact, it may be said that it is to the use of this method in matters of unsuitable complexity that we owe so many crude opinions in therapeutics. One man finds a disease do well under one drug; another finds it do well under another drug; a third man, perhaps, finds it does better without any drug at all.

The mere fact that one event is followed by another event does not show that the one is the cause of the other. According to the Commissioners' tables, only about 14 per cent. of the insanity of this country is caused by intemperance in drink. This statement, I think, we may really regard as meaning that insanity was preceded by intemperance in 14 per cent. of the cases; leaving upwards of 85 per cent. where it was preceded by temperance. Temperance, on this showing, is a much more frequent precursor of insanity than is intemperance. On what grounds do we regard the least frequent antecedent as a cause, and deny causation in the case of an almost constant antecedent? The grounds, though palpable enough, are, as a matter of fact, altogether dropped out of view in all the calculations hitherto in use. If we wish to know the proportion of cases that are caused by intemperance, it is obvious that we must compare the proportion of cases of insanity occurring in the intemperate with the proportion among the temperate; the excess displaying the influence.

Our procedure, then, to establish causation in complicated cases, is much as follows. We first, by observation or by

guesswork, find certain agencies that appear to be causes. We then must compare the cases in which the supposed cause is present with the cases in which it is absent, and find whether the phenomenon whose causation we are investigating, is more frequent in the one group than in the other. If the proportion be the same in both groups, the supposed cause is not a cause; it is inoperative. An excess in one of the groups betokens an influence positive or negative either in the supposed cause itself or in something on which it depends. It is necessary to observe that we cannot always say whether a given factor in the series of events is a cause or an effect of insanity. But I shall say a word or two on this point by-and-bye.

It is seen then that the question of causation is a question of statistics. One cannot in any individual case point to some prominent element in the series of events that culminate in insanity, and say with certainty, "That is the cause." The chain of causation—an apter expression would be the "web of causation"—is too complex to admit of our tracing with accuracy the individual strands. We can only follow the general direction.

For these reasons it is obviously unwise to put the task of making the inference of causation on the shoulders of the people who are in a position only to observe the facts. The work of inference should be the duty of the central authority. The patient's friends should merely be asked to supply information as to the facts preceding the outbreak. And, in order to secure comprehensive and trustworthy information, it would be necessary that a document, setting forth all the presumed causes of insanity, such for example as the table of causes in use by the Commissioners, should be sent to one of the friends of the patient to note the presence or absence of each item in the individual case. One or two other points in reference to such a document will be noticed presently.

But suppose we are assured of the correctness of our facts. Our most difficult task is as yet uncommenced. We may know that intemperance preceded insanity in 14 per cent. of the cases; but we should still be ignorant of the proportion of cases it caused. And even if we knew the proportion of cases it caused we should have knowledge of merely a trivial and unimportant character. One of the radical faults that Mr. Mill points out in Bacon's view of induction is that he adheres to the ancient opinion that the prime office of philosophy is *rerum cognoscere causas*, to find out the causes of things; instead of *cognoscere effectus*, to know the effects. In practical

life it is more important to foretell the effects of a given cause than to be able to declare the causes of a given effect. This is the ruling principle of experimental science, and is specially exemplified in what logicians term the Method of Difference and its subordinates. To illustrate the nature and the importance of the distinction between knowing the causes and knowing the effects, let us for a moment recur to our old example. Suppose we find that 14 per cent. of the insanity is due to alcoholic intemperance, what does our knowledge profit us? We do not know the proportion of insanity amongst the intemperate; and we are no wiser than before as to the likelihood of hard drinking to eventuate in madness. And yet that is the really important point. Again in the case of heredity, what a bootless calculation to discover that about 19 per cent. of the annual insanity is caused by hereditary influence! Such knowledge is wholly worthless as regards application to any useful purpose. What would be really useful would be to know the proportion of cases in which heredity failed or succeeded in bringing about the insanity of the offspring.

But I have reason to believe that a fallacious interpretation is sometimes put on the present tables of causation; and that they are read as tables of effects rather than as tables of causes. For example, when it is stated that 14 per cent. of the insanity of the country is due to intemperance, I fancy that some people transpose the terms in their imagination, and understand that 14 per cent. of intemperate persons become insane. This error would appear to be the mere stupid blunder of an uncultivated intellect; but I imagine it is not quite so rare as the general diffusion of culture would lead one to suppose.

From what has been said it is evident that in order to draw any inferences of value we require a basis of comparison. It is not enough to know how many cases were due to one cause and how many to another. We must have the entire number of cases in which the supposed cause was present, and the number in which insanity followed. We must know for example not merely the number of cases in which drink is followed by insanity, but the number of cases in which it is not followed by insanity. This knowledge may be hard to get; in many instances it may be impossible. But there is no use in disguising from ourselves the fact that without it we cannot arrive at any comprehensive and trustworthy conclusions.

It is not within our province as medical men to collect the

data necessary for determining the prevalence of the causes. The knowledge must be supplied to us; we cannot acquire it by our own labours. The task of obtaining it is more nearly akin to the work of the census than to any other department of investigation. I may, however, be permitted to say that the undertaking appears on consideration to be of a less arduous nature than at first sight one would suppose.

Well now, supposing we have before us the whole array of cases where the reputed cause is present, we can compare the instances where it has been followed by insanity with the cases where it has not been so followed. After deducting the cases that may be ascribed to chance (more strictly the cases where the effect was due to other causes), it might be thought we should at last have reached the wished-for knowledge; and that we could state the proportion of cases where a given cause would lead to insanity. A little reflection will show that such a supposition would be erroneous, and that an important element has still to be taken into account.

This element, which I believe has hitherto escaped notice, is the duration of the cause. Let me illustrate my meaning by a fictitious example, as the facts requisite for a real example are not to be had. We wish to know for instance the efficacy of hereditary influence in producing insanity. Suppose we find that out of every 30 people with hereditary influence one becomes insane each year, it might be hastily concluded that the chance of heredity producing insanity was only 1 in 30. Let us now make an extreme supposition, and assume first, that every person with hereditary tendency becomes insane; and secondly, that they become insane at 30 years of age. Now if they vary in age from 1 to 30, it is evident that only one becomes insane each year; and if one is born each year to supply his place the proportion between the asylum admissions from this cause and the people with hereditary tendency will always remain 1 in 30; though, by our hypothesis, they all go mad in good time.

We thus see that a simple comparison of the annual admissions from any cause with the numbers of the unadmitted where the same agency is present, would lead to the most erroneous inferences. In the example just given, it would be necessary to compare the admissions during a period of thirty years with the number of the uncertified heirs of insanity in order to form a correct opinion.

On what grounds, now let us ask, do we base our calculations on yearly statistics? The fact is, that it is purely for

convenience that the data are collected annually. The arrangement is quite arbitrary, and without reference to any rational principle. The appearance of uniformity for comparison is altogether delusive. If we took the number of admissions from any cause, say drink, every three months, the numbers would appear insignificant; if we took them at remote intervals, say every twenty years, the numbers would grow to an alarming magnitude. Is there any reason why we should choose one period in preference to another? Some causes act slowly, taking years to accomplish their result. In such cases if we make merely an annual comparison we place for several successive years amongst the cases where the cause is inoperative cases where really the cause has not yet had its period. On the other hand, in the case of quickly acting causes, say causes that accomplish their result in three months, the admissions from such a cause would appear fourfold greater than they should be to admit of a just comparison with the cases where the same agency had not been followed by insanity.

There is one other element of importance that should be taken into consideration, but which, in the present state of the subject, need not be here presented in detail. I mean the expectation of life in people in whom any presumed cause of insanity is at work. This is really an essential point in the calculation, as without attending to it we should count some people more than once.

I will now attempt to work out an example in illustration of the foregoing exposition. It must be borne in mind that as no authentic facts are to be had in regard to some of the essential points, I have been obliged to lay down some of the figures merely from guess work and my own rough observation.

Suppose now we wish to evaluate the influence of drink in causing insanity, how shall we proceed? We must first determine the prevalence of the agency in the general population. In the present case, women and children, being comparatively little exposed to the agency in question, will be left out of consideration. Speaking roughly, the adult male population is about 6,000,000, and about 1 out of every 1,000 is yearly put under certificate. About 21 per cent. of all the males put under certificate, or 22 per cent. of the males over 20, have their insanity preceded by intemperance. From my own observation I estimate the proportion of intemperance amongst adult males at about 1 in 12.

Now let us take these figures as our data. Out of every 120,000 adult males we should find 110,000 sober and 10,000 intemperate. Moreover in a year out of the 120,000, 120 would become insane. Of that hundred and twenty we should naturally expect 10 to be intemperate, even if drink had no influence whatever in causing insanity. But as a matter of fact we should find that 26·4 were intemperate, thus observing a surplus of 16·4 in which drink was either the cause or the effect of the disease. In other words, out of 10,000 drinkers, 26·4 go mad each year; and of the 26·4 drink is the direct cause or effect in 16·4.

But now it is necessary to apply some of the principles previously established. The result we have just arrived at shows merely the numbers for a year. It does not show what would be the result if 10,000 people were watched from the time they began to be intemperate until they died. To obtain this knowledge there are three points on which we still require information—information which, with a properly devised system of inquiry, I think we should manage to possess ourselves of. These points are the mean, or perhaps the average, age at which insanity from a given cause occurs, the mean or average duration of the cause before the outbreak; and in the case of agencies that tend to shorten life, the mean or average expectation of life after the appearance of the given agency.

Now suppose we have the knowledge we want, and that the age at which intemperance generally begins is about 20; that when insanity is due to this cause it usually shows itself about 40; and that the average age at death of intemperate people is 50. In a stationary population of intemperates, two-thirds, according to these data, die in each period of twenty years, and the loss is made up by recruits. In making our calculations, it is obvious that we must compare the admissions (excluding re-admissions) in each period, not with the entire body of toppers, but only with the recruits; in other words, only with those who have not been previously counted. The number of recruits then, in each twenty years, would be roughly 6,600; and the admissions of toppers would be 520. But, making allowance for re-admissions, we find that only 330, or 64 per cent. of these, are new cases. Out of 6,600 toppers, then, we have 330 new cases, or 50 in every 1,000; and, according to our previous calculation, of this 50 about 30 have a direct connexion with intemperance; the remaining 20 can be accounted for without reference to drink.

By way of comparison, let us see the rate at which people go mad from all causes. The expectation of life for males at 20 is about 43 years. Assuming again, what is roughly true, that 12 out of every 12,000 males over 20 become insane yearly, we should have 516 admissions during the entire period of life of each 12,000. But of the 516 only 64 per cent. or 330 would be new cases; and of the 330, 22 per cent. *i.e.* 72, or making allowance for the different expectation of life in tipplers, only about 50 would be due to alcohol, which is the same result that we arrived at by a different process.

We arrive then at these results. Out of every 1,000 people about 27·5, of every 1,000 non-drinkers 25·5, and of every 1,000 drinking people about 50 go mad before they die; and of the 50, in 30 cases the drink has a direct connexion with the disease.

In all these calculations it is assumed that the causes are independent, that is, without influence, hostile or otherwise, towards each other; and that the re-admissions are distributed equally over all cases, that they are not more frequent proportionally from one cause than from another. These points, of course, require to be determined.

It must, I need hardly say, be understood that I do not for a moment defend the accuracy of the figures; I wish merely to show the correct mode of reasoning.

The calculations I have laid before you have necessarily been intricate and tedious. But let me say one word more, and then I shall have done with this thorny and uninviting portion of the subject.

It might be said that we need not go to such trouble to determine the proportion between the cases in which the agency was followed by insanity, and the cases in which it was not; that a readier method is at hand—to compare the numbers in asylums with the numbers without. Such a plan, however, would be fallacious for two reasons. First, many, being only a short time under certificate, would count amongst the “outs.” Secondly, the cause might be of such a nature that people who became insane from it died sooner than those who did not become insane from it; and thus they would not accumulate in the asylum.

In accordance with the views I have laid before you, I will make one or two suggestions.

First. It would be desirable, as previously mentioned, to replace or to supplement the present statement that accompanies the certificate, by a tabular enumeration of all the

supposed causes of insanity ; and one of the friends should be required to note the presence or absence of each item ; and if present, the length of time it had been at work should be put down. It would be important also, in view of determining the influence of heredity, to know how many children married lunatics had. In order to secure the careful filling up of such a document, it should not, I think, be made to accompany the certificate ; but should be required within a week of the patient's admission. Such a method would go a long way towards checking the carelessness and negligence that spring from the hurry, confusion, and bother that sometimes occur in sending a patient to an asylum.

The second suggestion I have to make is that it would be useful if from the annual returns a table were compiled, showing the mean or the average age at which people went mad from each cause.

It hardly lies within our present scope to consider the means of getting information on the other points, such as the general prevalence of each cause, and the usual time of death from the various causes.

A few minutes ago I mentioned that it was not always easy to say whether a given symptom was a cause or an effect of the insanity. If the proposed suggestion of stating the duration of the cause were carried out, it is not unlikely that some light would be thrown on the difficulty. I think it is probable that we should then find that cases in which the alleged cause was present would divide themselves into two groups. In the one group where the agency had caused the insanity, it would have long preceded the outbreak ; in the other group, where it was the effect of the insanity, it would have been present only a little time before the attack.

In conclusion, I will say that the course of inquiry I have indicated is an arduous one ; but it has the merit of leading to useful knowledge. I am by no means unaware of the difficulties that meet us at every turn in attempting an investigation of the kind ; but I am firmly persuaded that like all other difficulties they may be overcome by forethought and address. And if such be the case the result to be attained is surely of sufficient worth to call for a trial.

The Study of Insanity. By CHARLES MERCIER, M.B. (Lond.),
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Asylum, Herts.

When the doctrine of Insanity emerged from its primitive condition of a belief in demoniacal possession, a belief highly spiritualistic in form, and highly materialistic in fact, it became re-moulded in the current forms of thought, and assumed a shape much like that which now obtains among the uninstructed. The concept of mind having attained to but a low degree of differentiation, and the boundaries between mental and material processes being but vaguely defined, alienism in its early stages could not but reflect the imperfections of the knowledge upon which it was compelled to rest. The alienist, observing that his own actions were preceded or accompanied by mental processes, that the more pronounced his actions the more vivid the feeling which accompanied them, that from each action he could trace backward the line of thought which prompted it; and being generally impressed with the close interconnection between his mental states and his conduct; looked at them as in the relation of cause and effect, and shared the then prevailing doctrine that the Mind, by means of that portion or faculty called the Will, directly produced the bodily actions, much as the force stored in the mainspring of a watch produces the movements of the hands.

Having by introspection reached this conclusion, the alienist then projected the whole process into the organism of his patient, and inferred, logically enough, that as conduct was the product of the mental state, the only possible explanation of the conduct was a knowledge of the mental state of the patient, and hence the whole study of Insanity became a struggle to ascertain the state of the patient's consciousness.

This method of expressing Insanity in terms of subjective states only, reached its climax in the opinion given by the Judges in McNawghton's case, and, although a good deal weakened by an influence that will be presently considered, it still retains a large proportion of its sway. It is true that alienists have long rejected and combatted the doctrine that the test of insanity shall be in criminal cases the ability of the patient to distinguish between right and wrong, and in civil cases the oral admission of a delusion, but they have not recognised that the rejection of these tests involves the rejection of the theory on which they are based, nor that the doctrines still

upheld by themselves involve that theory fully as much, although they do not push it so far towards its logical extreme, as the tests they have rejected.

That theory is, that Insanity is to be studied from a subjective standpoint; that, as it is a disorder of the mind, its phenomena are to be studied as affording an insight into mental states; in short, as said above, that we must strive to ascertain the state of the patient's consciousness, under the belief that when that is known, the whole matter is explained. Many will disavow this doctrine when thus nakedly stated, but, explicitly or implicitly, it is undoubtedly the theory in possession.

Explicitly it is avowed by Dr. Copland, who defines insanity as "a deviation from, or perversion of, the natural and healthy *state of the mind*."* Similarly Dr. Combe, quoted with approval by Dr. Hack Tuke, says, "It is a prolonged departure . . . from the *states of feeling and modes of thinking* usual to the individual who is in health." Dr. Bucknill, again, calls it "*a condition of the mind*, in which, &c.," and to these might be added many others fully as unequivocal. It may, however, be objected that these are mere abstract expressions, embodying, indeed, a speculative opinion, but in no wise committing those who are responsible for them to any special line of practice. Without diverging here to any discussion on the influence of speculative opinions on practice, it is easy to show that the study of insanity down to the present day has been founded on what may be termed the spiritualistic doctrine, and still remains committed to its implications.

The Committee of the English Medico-Psychological Association may be taken as thoroughly representative of the highest development of modern alienism, and in 1869 this Committee drew up, for the guidance of the profession, a Form for the investigation of cases of insanity, which may be taken as an embodiment of the opinions of its members as to the point of view from which a case of insanity should be regarded. This Form deals almost wholly, and confessedly so, with the *state* of the patient, and if as I believe, and shall endeavour to show, insanity is the disorder, not of a state, but of a process, it can no more be expressed in statical terms than the flight of a projectile can be expressed in terms of space and force alone.

The quæsitæ indicated in the Form are grouped under the heads of Body and Mind; various possible bodily states and

* All the italics in this passage are inserted, and not in the originals.

mental states are suggested; the bodily states are looked on from the point of view of the physician, and indeed this portion of the Form is a rescript of the physician's scheme for case taking; the organism as a whole is looked upon as at rest, and the only actions considered the interactions of its parts. The dynamical aspect of the organism is ignored. Similarly, under the head of Mind, various mental states are suggested, but, not only are the references to mental processes few and incidental, but all reference to Conduct is omitted, except in so far as it affords an index to states of consciousness which may be supposed to prompt it. The wording indeed is somewhat ambiguous, as if the draughtsmen felt, without explicitly recognising, the insufficiency of the scheme. Thus, the "Exaltation" and "Depression" may be applied equally to a state of mind or a phase of conduct, but their position under the heading "Mind," renders it necessary to interpret them in the former sense; and similarly, the coherence to be tested must be a coherence of thought, and not of language merely.

It is probable that the prolonged vitality of what is here termed the spiritualistic view of insanity, is largely owing to the similarly equivocal connotations of the majority of the terms employed, together with the instantaneous manner in which, from a phase of conduct, we *infer* a state of mind, and then go on to speak of the mental state as if we had actually observed it, or, which is almost equivalent, as if the inference possessed a validity equal to that of the observation. The current phrases, "How happy he *looks*," "Did you *see* his perplexity?" are extreme instances of this habit, and although no alienist would use expressions of such loose construction as this, yet the attitude of mind which such phrases imply is one from which hardly any one is free, and against which it is most difficult to be sufficiently guarded. For instance, when a patient is spoken of as "excited," the state described by this word is one of energetic action, of rapid or powerful bodily movements, such as restless glances or loud screams. We infer that this bodily state is associated with an "excitement," *i.e.*, an unusually vivid condition, of the patient's mental states; and hence the word "excited" drags into consciousness the concept not only of the bodily state, but that of the inferred mental state also, and the mischief is that these two totally different connotations of the word may then be used interchangeably; and we may argue that, as a patient is "excited," *i.e.*, in active movement, certain consequences may be expected from the "excitement" of his mind; when, as a fact, his con-

sciousness may be altogether in abeyance, as for instance, in certain post-epileptic occurrences.

Once this fallacy, for it is a pure logical fallacy, is exposed, and the danger of falling into it, and its immense importance are fully recognised, the spiritualistic doctrine of insanity falls to pieces. For, if we regard a knowledge of the consciousness of a patient, a knowledge, that is, of his "states of feeling and modes of thinking," or of the "condition of his mind," as affording an explanation of his altered conduct, then we may construe these expressions either in their absolute sense or in their looser and more vernacular meaning. In the first case it is a primary canon of psychology, it is indeed a truism, that no one being can enter into the consciousness of another, so as to know what is passing therein. If we accept the expressions in the approximate sense in which they are used in ordinary discourse, we note in passing that scientific accuracy is abandoned, and go on to show that even in this modified sense the theory is untenable.

According to the spiritualistic view, the altered conduct of the insane is explained, accounted for, and presumably caused by the alteration of the state of feeling and mode of thinking of the patient. But such propositions as these, although capable of being stated in words, are, strictly speaking, unthinkable. If modern psychology teaches anything, it teaches that a mental state can no more cause a bodily movement than heat can cause a triangle, or than the number twenty-three can cause a flash of light. This objection is sufficiently fatal, but even could it be explained away, which it cannot, another remains behind which is still destructive. Grant that the mental state is a full explanation of the conduct, how are we to arrive at a knowledge of the mental state of a patient? The only possible answer is, from his words and acts; that is, from his conduct. So that we are to judge of his mental state by his conduct, and then turn back and judge his conduct by his mental state; a proceeding which looks dangerously like a vicious circle.

It appears then, that however modified and softened, the spiritualistic view of insanity is not only baseless and insufficient, as an explanation of the altered conduct of the insane, but that it is actually self-destructive, and only needs to be stated in explicit and unmistakable terms to ensure its abandonment.

The alienist may, however, complain, and complain justly, that the doctrine above examined and rejected is but a partial statement of his position; that the consideration of the mental

condition forms but a single aspect of the case which he examines from both sides; that the data from which he determines, or if you will have it so, from which he guesses at, the state of the patient's mind, form but a moiety, and that, perhaps, not the most important, of the data which guide him to a decision. Admitting the justice of this protest, let us examine the obverse aspect of his method, and see if it contains the elements which are wanting in that already considered.

Ever since Insanity has been a subject of study, some forms of mental alienation, as, for instance, that occurring in acute fevers, and those occurring in alcoholic and belladonna poisoning, have been expressly excluded from the denotation of Insanity, have been called by another name, and considered altogether apart. This exclusion arose, not because of any difference in kind or degree between the forms of alienation occurring with these bodily conditions and the forms occurring in "true Insanity." It is not asserted that there are no differences, but those differences, if any, had nothing to do with the exclusion of these forms of alienation from the consideration of the alienist. They were and are still excluded simply and solely on account of the very definite and recognisable bodily conditions which accompany them; and this exclusion of certain cases of alienation from the consideration of the alienist was the first recognition of the necessity of taking account of the bodily condition among the facts to be estimated in a case of Insanity. A coarse and clumsy recognition, it is true, but an extremely definite one.

With the rise and development of scientific pathology, and the ever-increasing closeness of observation brought to bear on cases of bodily disease on the one hand, and cases of insanity on the other, the existence of a connection between abnormal alterations of bodily processes and abnormal alterations of mental processes came to be more completely recognised; and, as a consequence, the study of Insanity came to include more and more searching and minute investigations into the bodily functions of the insane. The pursuit of this line of study has led to results of unquestionable importance. It has led to the discovery of special defects in the bodily organisation of the insane; microcephalism in some, hydrocephalism in others, reversions to types of organisation left far behind in the general progress of the race; it has recorded, muscle by muscle, the amounts of contraction obtainable from them; the degree of acuteness of the special sense organs; the variations of temperature; the amount of activity, and the quality of

work of almost every organ in the body. It has ascertained the changes in the brain after death, of vascularity, of bloodlessness or the reverse, of weight, colour, consistence, specific gravity, and what not; and the microscopic alterations in the nerve cells and tubules, in the capillaries and neuroglia; and it has established many connections of interest and value between these phenomena. It has established a connection, vague indeed, and not pretending to amount to an explanation, but still a connection, if only of contemporaneousness, between pregnancy and one form of Insanity, between lactation and another, between phthisis and a third; it has discovered gross structural alteration of the brain in general paralysis, and microscopic changes in dementia. Indeed, so striking have been the results of this method of investigation in connection with the barrenness of the former, that it has not unnaturally been accepted in too absolute and crude a sense, and assumed an exaggerated importance; so that a leading medical journal could go so far as to say that insanity would never be properly understood until it was considered as a bodily disease, and an eminent and justly-admired physician could altogether reject introspective mental studies, and ridicule the aspection of insanity from the subjective standpoint. Opinions so extreme as this are never generally followed, but they serve to emphasise the characteristics of a doctrine and to mark the culmination of a wave in the undulatory progress of thought.

Great as has unquestionably been the advance in our knowledge effected by the inquiry into the bodily condition of the insane, yet the influence of this course of investigation has not been an unmixed benefit to alienism. Pathology being the source from whence the major portion of our substantial knowledge regarding Insanity has been derived, and alienists having moreover to pass through a thorough drilling in the methods of pathological research before entering on their proper field, there has resulted a considerable importation into the study of Insanity of the phraseology and implications of a system borrowed from a totally different science, dealing with totally different matters, by which the student of Insanity has been embarrassed and misled.

For instance, we have the artificial division of the mind into faculties, corresponding with the natural division of the body into organs, and along with this division we have the behest, actual or implied, to conduct our investigation of the mental condition of the insane on the lines of the division thus laid down. We have, moreover, a classification of Insanity adopted

by the International Congress of Alienists, based upon the variations of physical condition with which insanity is associated.

And now, granting the great accessions to our knowledge regarding insanity that have accrued from a study of the associated pathological conditions ; and granting furthermore the indefinite extensions that our knowledge may gain with the further development of this method of study ; there remains the question, Can we hope, by pushing our studies in this direction far enough, to arrive at a satisfactory explanation of Insanity ? Grant that, in a given case of mania, we have a register of the conditions of all the bodily organs, that we have an hourly record of the temperature, that we have the precise amount of carbonic acid exhaled by the lungs, that we have the urea, the phosphates, the albumen, in the urine quantitatively estimated, that we have the tests of the acuteness of all the special senses, a drawing of the fundus of the eye, a record of the electric reactions of all the muscles, and the percussive reactions of all the tendons ; that we have sphygmographic tracings of the pulse, and can measure, to an ounce, the amount of blood passing through the brain, and to a decimal figure the proportion of its constituents ; and now, having gained all this, how much nearer are we towards the explanation of an act of homicide ? Nay, grant that our means of investigation may advance so far that we can produce a balance-sheet of the amounts of force collected and expended by the organism, how far have we advanced towards accounting for a grandiose delusion ?

Clearly, the facts belong to different orders, and however adequate may be our knowledge of the facts of the one order, it will never give us an explanation of the facts of the other. However far we may pursue a path, it will never lead us to a goal which lies in another direction.

Here again, the upholder of the *status quo* may refuse to admit the justice of this representation of his position. "It is true," he may say, "that the view from the subjective standpoint affords no explanation of the facts of insanity ; it is true that the observation of statical bodily conditions does not afford much insight into conduct ; but we do not depend on either process separately. Our object is to find an explanation of insanity by investigating both bodily states and mental states, and establishing a consensus between the two." Granting this, yet still it must be admitted that, although investigation on this basis has been long in progress, yet, so far, the advance towards a rational system of alienism has been almost nothing. The two lines of investigation have been, for the

most part, conducted apart, and where they have been forced into contact they have refused to amalgamate. The connection empirically established between Pregnancy, Parturition, &c., and certain forms of Insanity, remain isolated facts, detached, inert, and without any semblance of containing the germ of a system of alienism. They afford no explanation of the conduct of the patient, even in cases in which they occur, far less do they suggest any principle which can be applied to other cases, or to insanity in general.

On what system, then, is insanity to be studied? If the study of mental states is insufficient; if the study of bodily functions is insufficient; if the simultaneous study of both, and the relations between them is insufficient, what alternative course remains? If the facts of these widely differing orders do not either in themselves or in their collation constitute the whole data for the study of insanity, to what order of facts do the remaining data belong, where are they to be looked for, and, when found, on what system are they to be organised? The answers will be anticipated by readers of the foregoing. The remaining data are to be sought in the study of Conduct. The facts obtained from this source form the complement of those hitherto considered, and the organisation of these three series of facts into an interdependent whole, forms, from one aspect, a true concept of a scientific system of alienism. It has, of course, been impossible to study insanity without taking Conduct into account, and the records of cases of insanity are mainly occupied with the relation of the acts of the patient, but hitherto they have been examined only as affording an insight into states of consciousness, as indicating the processes going on in the mind, and there has been no explicit recognition that Conduct and Intelligence are co-ordinate aspects of the same process, and that one can no more be disordered without corresponding disorder of the other, than a body and its shadow can move independently.

The tendency to regard Conduct, not as a primary element in the concept of Insanity, but merely as a symbol of the mental condition which accompanies it, permeates the whole of modern alienism, and is manifest in almost all that is written on the subject. The few phases of conduct that are mentioned in the Form of the Medico-Psychological Association, and the subordinate position that is assigned to them, are illustrations of this tendency. The definitions of Insanity above alluded to, are implicit declarations of the doctrine, and more explicit evidence is readily forthcoming. So far has this notion of Insanity been

carried, that we are but now emerging from the theory which looked on all bodily manifestation as valueless unless it took the form of verbal utterance. While oral conduct was noted, weighed, considered, and even erected into a test of Insanity, as in the case of "knowledge of right and wrong," and in the assumed necessity of proving the existence of a delusion, Conduct other than oral was deemed to have no validity as a test, and scarcely any as an indication of alienation. Even down to the present time, and by the most distinguished alienists, an apologetic tone is adopted when conduct other than oral is adduced as evidence of insanity; or at least, an argumentative and even combative attitude has to be assumed in order to bring about its acceptance. Thus, Dr. Hack Tuke, in the admirable text-book of psychological medicine, already freely quoted from, has this passage:—"That the mere act itself, however strongly suggestive of insanity, must, in the absence of collateral proof, be taken as evidence with extreme caution is most true. Usually, we believe there will be some decided evidence procurable of hereditary disease or of a change in the feelings prior to the committal of the act—generally of both—and yet Griesinger was compelled to admit that the act, and the act alone, might constitute sufficient evidence of the insanity of the homicide." This admission of Griesinger's is adduced by Dr. Tuke to support the view of the existence of a special form of mania, but it illustrates at once the prevailing method of viewing Insanity as an alteration of mental states only, of considering conduct in so far only as it affords evidence of abnormal mental states, and the admitted unwillingness of alienists to consider alteration of conduct as itself forming a primary element in the concept of insanity.

The course of investigation, then, which the alienist has to follow, is three-fold. Let us look a little closer into the process. When a nervous centre discharges—when, that is to say, the action of a disturbing agent brings about a re-arrangement of molecules in, and a liberation of energy from the centre, two things occur. First, the stream of liberated energy passes along the nerves to the muscles, and sets up in them contractions, ensuing in bodily movements; and second, simultaneously with this change in the molecular arrangement of the nerve-centre, a change occurs in the consciousness. This is the simple and typical form of the process, and on this type is modelled all conscious action whatever. It is true that there may be a nervous discharge and a bodily movement without a corresponding change in the consciousness, and there may be a

nervous energising too feeble to give rise directly to bodily movement, but yet attended by mental action; and with both these cases the alienist is concerned. The absence of consciousness he has to take into account, and in such circumstances as it would normally be present, to account for. In the second case he has to remember that, however feeble the discharge, yet if there be a liberation of energy at all, it must produce its effect. If it do not spread downwards to the muscles, and produce movements, then must it spread laterally, and, by disturbing the equilibrium of regions to which it extends, must set up further and further discharges which at length issue in movements; or else by exercising a lateral pressure, open up new ways of communication among the centres. Whatever may be the effect, each such effect will have its own subjective accompaniment, will be attended by further changes in the consciousness, and, by altering not only the distribution of pressure, but the resistance among the communications, must modify the subsequent discharges and the movements which result from them. However complex, however highly involved the process may become, however remote may be the apparent connection between the ultimate act and the discharge which initiated the nervous process resulting in that act, yet in all conscious action exist three elements and only three:—the Nervous Process, the Subjective Accompaniment, and the External Manifestation; or, in chemical terms, we may call the base of alienism a triad element, of which the three poles are Cerebration, Intelligence, and Conduct.

The importance of recognising the threefold aspect of the process is immense. It is not enough to give the doctrine a verbal acceptance, and then to regard a case of Insanity without reference to it. The full and conscious recognition of this fundamental fact should saturate every concept, every consideration of the alienist. As a psychologist, he must investigate his patient's mental states; as an alienist, he must observe his conduct; as a physician, he must study the nervous processes which underlie his mental states and find expression in his conduct. The facts belong to totally distinct and different orders, and the facts of the one must always be kept sharply demarkated from those of the other two. The alienist may not speak, as a layman would, of mental depression causing a suicidal act, or of a dose of alcohol producing a joyous state of mind. He may not speak of hypochondriacal feelings being due to intestinal lesions, or of constipation arising from melancholia; or if he does so speak, it must be admittedly as a *façon de parler*,

as an abbreviated expression which must be written *in extenso* before it can become a datum of scientific thought. But, while keeping separate the three orders of facts, he must be perpetually collating those of each set with those of the other two, and in the consensus established among them he must find, and he will find, the materials out of which to build a system of alienism.

It will be apparent from what has been said above, that of the three co-ordinate elements which come under the consideration of the alienist physician, the Nervous Process is that with which he is ultimately the most concerned. It is the central figure in the trinity, the bond of union, and more, it is the underlying fact which elicits the other two. Without a nervous process there can be no co-ordinated bodily movement. Without a nervous process there can be no subjective state. It is the substratum on which the double structure rests. Hence, as a physician, as desiring to reduce to normal action those processes which are disordered, the alienist must address himself more especially to the investigation, the comprehension, and the restoration of the nervous processes.

Of the three orders of facts forming the basis of alienism only one can be directly observed. The subjective accompaniment of nervous action, the states and changes of consciousness, can be known to us indirectly only, by an interpretation of the bodily movements, including, of course, the movements of the articulatory apparatus; and the nervous processes, although belonging to the physical universe, are yet almost as completely hidden from direct observation.

In estimating them we have to consider the bodily movements which are their outcome and result, the mental accompaniment with which they have a direct correspondence, and the totality of bodily conditions which makes them what they are. In order to arrive at a definite comprehension of what is taking place in the higher nervous centres, it is not sufficient to note down a random accumulation of observations and inferences containing facts belonging to the three orders of Function, Mind, and Conduct, mingled with each other, and unarranged among themselves. The investigation of each system must be conducted on a definite plan, and in accordance with scientific requirements. Not only must the scheme of investigation keep separate the orders of facts, not only must it provide for the thorough quartering of the ground to be gone over, but it must be so arranged that those facts shall be elicited and classed in proximity, which have to be thought of together. The

surgeon who recorded in the same connection that his patient had myopia and ophthalmia, the physician who noted as contiguous facts that his patient's tongue was coated and protruded to one side, would be derided as unscientific; but their errors would be venial indeed beside that of the alienist who looked on an hallucination as an affection of a special sense organ.

Schemes for investigating the bodily functions belong to the province of the physician, and, save in some departments bearing directly on the condition of the nervous processes, are plentiful and thorough. It remains to supply schemes, adequately fulfilling the requirements given above, for the investigation of mental conditions and of conduct. To supply these aids will be the object of a future paper.

On the Occurrence of Fat-emboli in the Acutely Excited. By
PROF. F. JOLLY. Translated by T. W. MACDOWALL, M.D.*

There occasionally occurs in lunatics who are labouring under acute maniacal excitement a more or less rapid loss of power. This may be followed by no further consequences; sometimes it marks the beginning of recovery, but it may rapidly end in death.

In many cases of the latter kind, acute inflammation of the lungs is found to be the cause of death; in others, infarcts occur due to emboli detached from peripheral thrombi. Septic infection, also, arising from gangrenous bed-sores, may be the cause of death, or it may be due to severe injuries which patients sustain in their excitement. But very frequently it remains obscure even after post-mortem examination. We are then wont to be satisfied by taking it for granted that death was due to the intensity of the disease, or—which comes to the same thing—to exhaustion.

It cannot be doubted that in many cases this is really the correct explanation of the fatal result. It is, however, quite certain also that the rather vague expression, "general exhaustion" sometimes serves as a cloak for our ignorance, and that under it are concealed several processes which might be more minutely defined.

As was shown in several cases during the latter years of my clinic, one of these processes is fat-emboli in the lungs—an appearance which, unrecognisable by the naked eye, is

* Archiv für Psychiatrie und Nervenkrankheiten. Band xi, Heft 1, p. 201.

often overlooked, but can easily and certainly be determined by microscopic examination.

I begin with the communication of the most characteristic and interesting case of the kind. It has already been recorded by Dr. Flournoy in his paper on fat-emboli* but it is of such decisive importance that I do not think it superfluous to repeat his detailed account of it.

1. Mrs. M., aged 28, was admitted on 19th May, 1878, to the psychiatric clinic. Until then quite well, she became acutely affected by the death of her husband three days previously. Menstruation, expected on that day, did not appear till the next (the day before her admission), and was accompanied by so much pain that the patient rolled on the floor to obtain relief. During the day nothing remarkable in regard to her mind was observed, but in the evening she went to a neighbour and begged leave to sleep with her as she was afraid to be at home. About 10 she became excited, seized her neighbour by the hair, ill-used her, shouted, jumped about the room, spoke in snatches about her household affairs as if she were busy with them, and about people who persecuted her and called to her. She again became violent and struggled to escape from the house. About two in the morning she quietened down and slept till five. She then relapsed into her former state, but the excitement was greater, and it became necessary to restrain her. As she became somewhat quieter about 9.30 she was removed to the clinic.

Here at first she gave some information about herself; said that something extraordinary had occurred in her head; that everything was confused; that she had an undefined feeling of fear, tightness of the chest and palpitation.

Soon after her admission she again became extremely excited, screamed, &c. She tried to cling to those around her, but with no intention of injuring them. After an injection of morphia she quietened down and slept till 2 p.m. At night the excitement returned, but we were more successful in fixing her attention, and she remembered all that had happened to her.

20th May. After an injection of morphia she slept till 4 a.m., but then became excited, destroyed her bed, and rolled on the floor. Vomited slightly. Yesterday menstruation was profuse, and is still present. Examination showed the genital organs to be normal. It should be noted also that the patient is very large and strongly built, and in good condition. On admission her face was slightly cyanotic; afterwards it became dark red through increasing excitement. Lips dry; tongue furred; pupils dilated, but sensitive. Even on admis-

* Flournoy, Contribution à l'étude de l'embolie graisseuse. Thesis, Strassburg, 1878 (from the Pathological Institute of that city). It also contains a digest of the literature up to that date. Since then have appeared the work by Wiener (Arch. f. exper. Pathol. 1879) and the monograph by Scriba.

sion there were numerous bruises on the extremities, and they increased in number and size from day to day through the patient rolling on the floor and beating on the walls.

On 21st May her condition remained as before, only she appeared more cyanotic and weak. She was perfectly delirious, rolled and beat herself as before, and took no food. After a morphia injection she slept at night, but on the morning of the 22nd she appeared more exhausted, with very feeble pulse, whilst the wild excitement continued. The numerous bruises on the trunk and limbs have quite the appearance of *post-mortem* discoloration. At mid-day, whilst an attempt was being made to give her some milk through the œsophageal tube, she died.

The following are the results of a *post-mortem* examination by Prof. V. Recklinghausen. No decolorised coagula in the longitudinal sinus. Dura mater rather strongly injected. Considerable serum at the base. Brain weighs 1,275 grms. Pia mater of the vault œdematous, easily stript off, and easily torn. Slight redness of the apex of the convolutions. Ventricles small; ependyma markedly thickened: granular in fourth ventricle. Brain on section exsanguine, especially the gray substance. Nothing else remarkable. Arteries at base filled by coagula.

An unusually large, powerfully built person; fat, very muscular. Numerous small scratches on the trunk. An abrasion on right knee the size of a franc piece, dark red and dry.

On both hips marks, larger than a hand, of a dirty red colour, resembling *post-mortem* discoloration; these are the seat of sanguineous imbibition. A large number of similar, but smaller marks occur on the thighs, legs, and arms. More diffuse are similar discolorations; one on the back of the right hand and thumb, and another near the sternum and over the right side of thorax. The muscles dry and very dark. A large number of minute ecchymoses in the omentum, and in the mesentery, especially in its upper part. Intestines moderately injected. Peritoneum of posterior abdominal wall and of Douglas's pouch covered with ecchymoses. Lungs scarcely at all collapsed, not adherent, well distended with air, indeed somewhat emphysematous anteriorly. No condensation. Marked hyperemia posteriorly, slight œdema. A small piece of straw in the throat. A bloody fluid, containing white masses (evidently milk) escapes from the larynx; it is present in the œsophagus, trachea and bronchi also. On both sides the heart contains firm coagula, decolourised on the right. Considerable quantity of blood in all. Walls very thick, especially the left. A few ecchymoses under the endocardium; no trace of any degeneration. Kidneys congested, cortical substance somewhat patchy; glomeruli prominent, large and pale, but of normal transparency. Nothing noteworthy in liver and stomach. Small ecchymoses in Peyer's patches. Masses of much hardened feces in colon.

Microscopic examination gave the following results; the lungs contain an extraordinary number of fat-emboli, not only in vessels of .04

diameter, but even in some of .05. In the kidneys, parenchymatous nephritis; fatty degeneration of the epithelium of the tubuli. No emboli in glomeruli. No emboli in liver and heart. A few emboli of the very small vessels of the pia mater.

It can scarcely be doubted that in this case the almost complete blocking of the majority of the smaller pulmonary vessels was the cause of death. The exhaustion and collapse which appeared during the last two days of her life, in a woman till then strong and robust, may be partly attributed to the intense excitement which was present; but it is more probable that they were due to the increasing obstruction of the pulmonary vessels, in consequence of which the left ventricle was deprived of its blood.

As to the source of the fat which was found in the pulmonary arteries, it can only be sought in the adipose tissue, which became so extensively disorganised through self-inflicted bruising by a very fat and muscular patient. As injuries of the bones were completely absent, there only remains a possibility that in the bruised spots of the skin fat was reabsorbed and conveyed to the pulmonary vessels.

This case is of extreme interest, not only from a general pathological point of view—through the unusual origin of the fat emboli—but especially from a practical psychological one. On the former point I will first of all say a few words. That fat-emboli can occur through absorption of subcutaneous fat has hitherto only been proved in those cases in which gangrene or ichorous destruction of the structure has occurred. Here, on the other hand, we have simply a crushing of the fat by a mechanical force. Flournoy, who first described the case, has succeeded in finding only one analogous to it in recent literature, one by Dr. Fitz, of Boston,* in which undoubtedly a purely mechanical injury of the subcutaneous adipose tissue led to re-absorption.

A man, who had sustained a dislocation of the thigh through being run over, died about 11 hours afterwards. Whilst in the hospital his pulse was weak, he had a rigor and became cyanotic. At the post-mortem examination the subcutaneous and intermuscular structures about the hip were extensively infiltrated with blood; the lymphatics surrounding the iliac artery contained blood, and the neighbouring glands were also blood-coloured. In numerous places the pulmonary vessels were filled with fat.

During the past year, however, an observation by Clouston

* Boston Med. and Surg. Jour., 30th May, 1878.

has been published,* which at first-look appears to present many analogies to those already given:—

The patient was an epileptic, *æt.* 40, who had a fit about once a week; was occasionally morbidly excited, threatened violence, was religiously deluded, and suffered from hallucinations of sight. Two months before his death he had a series of fits—for two days about two in the hour. He was quite comatose; on the second day he was much exhausted, and seemed likely to die. After he recovered from them, he remained very weak, and had swollen feet. No albumen. About four days before death he had a maniacal paroxysm; then fits came on one after another, accompanied by complete coma after the first few hours. Between the general convulsions he had local convulsions, affecting his face and arms. Died comatose.

Section:—Brain intensely congested, especially in the region of the pons and 4th ventricle. There were in some of the veins of the pia mater fibrous organised white bodies, in addition to the ordinary white clot. There was extensive fatty degeneration of the liver, kidneys, and muscular fibres of the heart. The bones were brittle; one of the ribs could easily be cut through. The cancellated tissue of ribs was very open, and filled with a grumous fluid. On microscopic examination many capillaries of the lungs were found to be plugged with fatty emboli, whilst in the pia mater many of the small vessels were filled with a substance which, like fat, was blackened by the action of perosmic acid.

On this Clouston remarks:—"This I believe, is a condition which has never been described in the human subject in epilepsy, or any kind of insanity." This, however, requires correction, as the case observed by me was published by Flournoy in 1878. It is open to question if the same cause of fat-emboli was present in both cases. It cannot be doubted that in Clouston's case the conditions for the formation of extensive bruises were present, but in his short account he makes no mention of them. At any rate there is the possibility of the fat-emboli having had their origin in the peculiar condition of the bones. In connection therewith I remember a series of cases, published by Flournoy, in which he found fat emboli in the lungs along with changes in the marrow, especially in old people suffering from marasmus. The spongy structure had largely disappeared, and the bone-cavities were filled with an almost fluid, deep red mass, in which, under the microscope, only very small fat cells and very numerous red blood-corpuscles were present. Flournoy believed that through the hyperæmia of the

* "Journ. of Ment. Science," July, 1879, p. 219.

marrow, compression and destruction of the fat cells and reabsorption of the fat occurred in the much dilated vessels. In the same way the absorption of fat could have occurred in Clouston's case. But as in it the information is wanting as to the existence or not of hyperæmia of the marrow, it must remain uncertain whether the fat found in the lungs was derived from it or from the subcutaneous tissue, or perhaps from both.

Into the controversy as to the manner in which fat in the subcutaneous tissue is taken up by the circulation, I will not go further. From the experiments of Wiener, it is evident that if fluid fat be carefully injected beneath the skin, a slight degree of embolism is certainly produced. It is also taken up by the lymphatics. A more extensive and rapid absorption of the fat, expressed from the fat-cells, apparently occurs, if numerous vessels are torn, as is the case in extensive bruising. That Halm* has not succeeded in producing fat-emboli in dogs through mechanical destruction of the subcutaneous tissue, proves nothing in opposition to the above positive results in men. Apparently these results only occur when the adipose tissue is largely developed, and the injured portions are subject to a certain but not too great degree of tension; as either the *vis a tergo* is wanting, or the torn vessels are occluded, and thus the absorption prevented.

These cases are specially interesting in settling the question whether they are quite exceptional, or if the appearance described is of frequent occurrence, but has until now escaped attention. I wish through my communication to suggest that in cases with a course similar to those described—and these are really not of such unusual occurrence—the microscopic examination of the lungs for fat emboli had not been omitted. In the meantime I may record some experiences from the last two years, which may assist in deciding the question.

2. On 21st October, 1879, a brakeman, æt. 37, was admitted under my care. A year ago he had his first epileptic attack; since then he has gradually become absent-minded, and is now a typical case of paralytic dementia. Soon after admission his incoherence and excitement gradually increased, especially at night, so that it was necessary to seclude him. In consequence of his helplessness he frequently fell down, and knocked himself against the wall, bed, &c., so that he

* Halm, Beiträge z. Lehre v. d. Fettembolie, München, 1876.

soon had a number of bruises. On 1st November he became fevered, and there was a commencing bed sore over the sacrum. On 3rd November he had an epileptic attack, after which, though he recovered consciousness, he was more confused and feeble than before. The bed sore spread rapidly, and by the 5th there were large cavities. On the same day he became completely collapsed, and died in the afternoon.

At the examination, made by Prof. V. Recklinghausen, the pia mater was found very much thickened, and adherent to the gray matter. Marked unevenness of the surface of the latter. Dilatation of the ventricles and thickening of the ependyma. Slight change of colour in the posterior columns of the cord. Slight icteric tint of skin. Bruises on the extremities, especially the lower. Gangrene of the great toes. Scabs on the edge of both shins. Extravasations on scalp, especially anteriorly. Deep bed sore on sacrum with emphysema, which extends as far as the right thigh. In heart, firm clots not decolourised, and without fat. Slight roughness of aortic valves. Lungs greatly distended, but not emphysematous. Left slightly, right very cedematous. An old cicatrix in left apex. No infarction and no ecchymosis. Spleen enlarged; kidneys congested. Nothing of importance in other organs. Microscopic examination showed decided, but not very marked fat-emboli in lungs.

In this case the fat-emboli were not sufficient to account for the death of the patient; they can at most only be considered as accessory. Of greater importance are doubtless the extreme exhaustion and the septic infection due to the bed sore. The circumstances are somewhat different in the following case:—

3. N. N., æt. 35, artillery sergeant, was admitted to my clinic on 27th May, 1880. Eight years before he suffered from a syphilitic affection, which had reappeared several times during recent years, and for which he had repeatedly undergone specific treatment. He married in the meantime, and his child, now three years old, is still healthy. He has complained since last summer of a furry feeling and pains in the feet and difficulty in walking. At the same time there were loss of the tendon reflex, decrease of sensibility, and unsteadiness on closing the eyes. He improved under the use of pills of the proto-iodide, and in winter he considered himself cured, but he was extremely irritable, and prone to outbursts of rage and other excesses. Slight difficulty in speech was also noticed. Since last Easter his excitement has increased, and he has also given expression to exalted ideas, though he still attended to his work. The day before his admission he began to preach from the balcony of his house, bragged about his services to the country, wished to send his cigar-ends to the emperor, &c., &c., became completely maniacal when an attempt was made to remove him. After a prolonged

struggle he was overpowered and brought to the hospital, bound hand and foot. Here, freed from his bonds, he continued excited, was very violent to his neighbours, so that it was necessary to seclude him, when he knocked himself about a good deal against the walls of his room. In three days calmness and exhaustion appeared. He was extremely hoarse and very weak and remained in bed. It was possible to gain his attention, and he was conscious of his illness. Phlegmonous swellings developed on both thighs, and they continued to enlarge in spite of numerous incisions and antiseptic treatment. Bruises which existed on hand and forearms on admission afterwards became the seat of phlegmonous inflammation, resulting in deep sloughs and emphysema. A bed sore formed over the sacrum.

After a remission of several days his mental condition became worse. Although he could not get out of bed, he was quite delirious, spoke incessantly in a hoarse voice, and struck and spat at those around him. There was frequently fibrillar twitchings in the muscles, and during the last days high fever. He died on 12th June, after having been several times markedly collapsed.

The following are the results of the examination made by Prof. V. Recklinghausen :—

Cord much softened, especially in the gray substance, which showed red discoloration in patches. In the lumbar region the posterior columns somewhat transparent. Skull and dura mater much thickened, but nowhere adherent. No changes in the arteries. Brain weighs 1,460 grms. On section, numerous red patches due to capillary hyperæmia, but no other change. Ventricles somewhat large: ependyma granular. Irregular deficiencies of structure along the edge of the tongue. Mucous membrane of the throat congested, but without cicatrices. A deficiency of structure on left vocal cord, communicating with perichondrial abscess in neighbourhood of arytenoid cartilage. Lungs congested and very œdematous, but nowhere infarctions or infiltrations. Heart normal. Nothing calling for notice in abdominal organs. Several cicatrices on the corona glandis. No other changes on the genitals. There was no evidence to support the reasonable supposition formed whilst he was alive, that the whole of the morbid phenomena were dependent on syphilis. Deep sloughing on sacrum and both legs, especially the left, in which the tibia is exposed. On both forearms discolorations of the skin, and openings which lead to cavities filled with foetid fluid. A rupture of rectus abdominis; at that spot a cavity filled with fluid and gas. Numerous fat-emboli found on microscopic examination of the lungs.

In this case also extensive sloughing occurred, which, undoubtedly reduced the strength of the patient, and was, perhaps, alone sufficient to cause death. Yet the fat-emboli in the lungs were so numerous that, in the opinion of

Prof. V. Recklinghausen, they must be considered amongst the causes of death.

The last two cases evidently cannot be classed with the first without reserve. Whilst in it the extensive formation of fat-emboli was due to the recent destruction of the subcutaneous fat without further development of inflammation; in the others, whilst there was extensive suppuration and sloughing of the subcutaneous tissue, the fat-emboli were not so numerous, and death occurred larger after their first appearance. That such suppuration of the subcutaneous cellular tissue can give rise to fat-emboli has long been known and could easily be illustrated by numerous quotations. For our purpose, however, it is only necessary to prove that such results may follow extensive contusions, and suppuration due to bedsores; and I do not doubt that such a condition of things will be found comparatively frequent when once attention is directed to them. Relative to their connection with bedsores I can refer to another case from my clinic, which has already appeared in the paper by Flournoy (Obs. xx.). It was that of a quiet paralytic, in whom, on admission, the knee joints were contracted, and afterwards sloughs developed on all the prominent parts of the lower extremities. The case is, however, not quite conclusive, in so far that the already mentioned change in the spongy substance of the sternum was present, and this may have been the origin of the fat-emboli.

Leaving this last doubtful case also out of consideration, the two others, however, prove that suppurations due to extensive bruises can produce fat-emboli, and under certain circumstances cause death, just as the first cases showed similar results from bruising of the adipose tissue. The first combination will, perhaps, be found of frequent occurrence, the last rather seldom. For the latter the following conditions are required:—Abundant subcutaneous fat and severe mechanical injury of it. The continued restlessness and repeated knocks of the above-mentioned patient probably favoured, to an unusual degree, the destruction of the fat-cells and the absorption of the expressed fat. Bruising, to a less degree, appears, on the contrary, to be innocuous. A short time ago, in a case of delirium tremens, who died in an epileptic attack, and who had sustained numerous bruises in and before the fit, we found only slight traces of fat-emboli in the lungs.

Of course fat-emboli are only dangerous to life in those

cases in which they affect a considerable extent of lung tissue. When formed to a slight or even moderately-marked extent they may remain harmless, as is well known from numerous clinical and experimental observations. The emboli are only fatal when the greater part of the vessels in the lungs are rapidly obstructed, and thus the supply of blood to the left heart materially diminished.

If in consequence of other causes (exhaustion through continued excitement or marked disease of the brain) the movements of the heart are already weakened, then a slighter degree of fat-emboli may cause death.

In glancing at the result of this communication, I would like specially to warn against exaggeration in believing that death from fat-emboli is of great frequency amongst the acutely excited, and that every otherwise unexplained death must be attributed to this cause. As I have said, we require further observations before concluding on this point.

But we must no longer regard extensive bruises in such patients as unimportant, as these—without sloughing—can directly cause death. Any method to protect patients from this kind of self-injury is urgently required; but I must confess that I know of no one quite satisfactory. If patients are held by attendants, matters are only made worse. With restraint we are not much better off, as the patients in the jacket, and even when bound in bed, always have the opportunity of bruising themselves. I must, however, say that with such cases the least objectionable form of restraint is fastening in bed, and I have frequently regretted the omission to employ it.

Suitably arranged padded rooms would certainly afford the best protection. But a really satisfactory arrangement remains to be devised. Still, in my opinion, they should be in every asylum, and they would be found useful, even in their present condition, if employed in those very transient conditions in which the patient is in danger of blows and bruises from his own violence.

In conclusion I may make a few remarks as to the kind of circumstances in which the danger of extensive contusions and the consequent risk of death from fat-emboli are greatest, and as to the nosological position of these circumstances. As I will again emphasise, it is not a distinct disease, but only a symptom, which may occur incidentally in the majority of diseases; the symptom of delirium with excite-

ment highly developed. It is this symptom which has been most appropriately called acute delirium, as in its beginning and course it is almost always acute. As Mendel has remarked, it is not correct to consider this delirium as a special form of disease, differing from other mental affections and marked by a distinct anatomical basis.

The authors who have erroneously made this metaphysical distinction have confused cases of acute general paralysis, melancholia with excitement, and acute mania; and besides these, they occasionally place in the same category cases of primary insanity with intercurrent delirium, epileptic delirium, delirium of acute diseases, &c. But it is very remarkable that they make a distinction between this acute delirium and another entirely (pretended) different disease which they call mania transitoria. It is, indeed, hardly conceivable how such a distinction can have crept into medical literature.

If one reads the descriptions of these two diseases as given in various monographs, and in recent text-books on mental disorders, we find in both intense excitement, acute from the very beginning, pronounced delirium and hallucinations, either the maniacal or melancholic type prevailing, occasional loss of consciousness with or without convulsions, marked disturbance of the circulation, congestion of the head, occasionally fever. If we look for any, even an apparent difference we find—1. That mania transitoria usually ends favourably, acute delirium unfavourably. 2. That the duration of mania transitoria is shorter than acute delirium. Both distinctions are quite fallacious.

As to the difference in duration, the opinion of Krafft-Ebing is generally quoted* that the average duration of attacks of mania transitoria is from two to six hours. But he reports cases, observed by himself and others, in which the attack lasted more than 24 hours, sometimes with remissions, but occasionally continuously. Cases of several days' duration are moreover abundant in literature, and must have been observed by every asylum physician. Where then is the line separating it from acute delirium, which may run its course in a few days, but generally extends to a few weeks?

But the difficulty disappears very simply if we say: Conditions of intense delirium with excitement, whether of

* Die Lehre von d. Mania transit. Erlangen, 1865, p. 28.

maniacal or melancholic character, are dangerous to life according to their duration.*

Little as we know at present of the anatomical basis of these conditions, still we know that they indicate a very serious disturbance of the functions of the brain. When transient or occurring in persons of unusual vigor, they may pass off without any result, and be dangerous neither to mental soundness nor to life. They may thus occur quite alone as transient mania or melancholia, or as an intercurrent phenomenon with all kinds of mental disorders. By no means unfrequently they occur at the beginning of simple mania of several months' duration, thus easily causing an error in prognosis, until we are guided to a correct conclusion by some abatement in the delirium and excitement, by the occurrence of connected ideas (*ideenflucht*), and more rationally ordered muscular movements. The same is observed at the beginning of acute melancholia.

But when of longer duration and the patient less able to combat them, these conditions lead either to permanent destruction of the mental powers or directly threaten life. Death may occur in several ways; occasionally through exhaustion, especially when the nutrition of the heart is impaired; and now and then it occurs through inflammatory diseases of the lungs. Very frequently it is directly or indirectly the consequence of phlegmonous abscesses and sloughs due to the patient's violence. The origin and unfavourable course of the latter processes may further occasionally be assisted by disturbance of the circulation, and possibly also by trophic derangements, which are consequent on serious disease of the brain. But in many cases—and here I return to *the* point to be proved in my paper—the unfavourable course of apparently unimportant affections in some cases is to be attributed solely to fat-emboli in the lungs. The evil does not lie in the brain disease itself, but in the accidental complication. Perhaps, also, many of the transient attacks of faintness and collapse, observed occasionally in short attacks of delirium, may be attributed to the same source.

* Since sending this paper to the printer, I have seen, for the first time, the recent article by Jehn, "On acute [transitory] mania and acute maniacal delirium" (*Deutsche med. Wochens.* 1880. No. 27). He contributes nothing new in support of the, to me, objectionable differentiation of these diseases—"the most innocent and most dangerous of mental diseases," as he expresses it.

On the Early Phases of Mental Disorder, and their Treatment.

By W. B. KESTEVEN, M.D. St. And., F.R.C.S. Eng.

To recognise disorder of the mind in its early phases, places it within our reach at the most opportune season for checking or arresting its progress. The first signs of alienation, if duly appreciated, should afford warnings to have recourse, without delay, to the means of cutting it short. The consequences of overlooking or neglecting these timely indications may soon become irreparable. With what thankfulness do we not hail prevention in malignant or infectious maladies; with equal eagerness ought we not also to be on the watch for, and ready to avail ourselves of, means of staying the approach of symptoms that may apparently be less urgent or less obvious, but which are nevertheless certain indications of an affliction which may blight the hopes of a whole life, bringing with it unhappiness and misery incalculable.

Looking at the fact that a very large proportion of our population (it has been estimated one in every three hundred) becomes, sooner or later, insane; and, bearing in mind that insanity once established is rarely entirely recovered from, that the integrity of the brain is probably never entirely regained, it is plain that we cannot be too keenly on the alert to recognise precursory indications, if we would avert consignment to asylum life with its painful memories and inevitable stigma. How many minds of the highest order have been shattered beyond remedy, for want of vigilance at the outset of threatened indications, a neglect which, not seldom, has carried dire distress into the family circle, and has helped to swell the records of criminal jurisprudence. The watchful eye of affection will generally soon enough detect a deviation from the bodily health, and that, perhaps, long before the existence of serious or structural disease. It is not always so with the onset of mental disease; friends and relatives are too prone to shut their eyes to vagaries, absent-mindedness, and eccentricities, that should have aroused their vigilance. The blindness, it is to be feared, is, in many instances, more or less wilful, under consciousness of an hereditary proclivity to insanity, and a dread of the odium falsely attaching thereto. Afraid to look the fact in the face, the malady is allowed to be unchecked

in its progress until confirmed, and the consequences so much dreaded have become inevitable.

Without endorsing the hackneyed cynicism that "all people are mad on some point," the fact is patent beyond contradiction that there is prevalent in the present day, arising out of the complexity of modern civilization, a tendency to *neuroses* or affections of all kinds, with a concomitant deviation from perfect mental health. The physician is daily brought into contact with the varied forms of hysteria, rheumatism, neuralgia, St. Vitus' dance, paralysis, epilepsy, complex convulsion and epileptiform affections, &c. Dr. Crichton Browne has dwelt upon this fact as follows, in his address before the British Medical Association, at Cambridge:—"These neurotic states do not altogether shorten life, but they cause a chronic invalidism; they cripple power and usefulness; they spread wretchedness around; they embitter existence; they render men unfit to follow the pursuits of business, and incapacitate women from performing their domestic duties;" a psychological condition it may be added not indicative of insanity, but differing widely from complete sanity. The nervous system is now sooner exhausted than in past times. All diseases, even those strictly classed as bodily, distinctive from mental affections, participate in the influence, and call for therapeutics of another order from that of preceding days. So obnoxious, indeed, are we to the wear and tear of the battle of life that it is almost a platitude to say that to half the world, at least, in cities and towns, the autumn holiday is not a mere indulgence, but an absolute necessity.

So universal indeed is this unhealthy condition of the nervous system, that among the specialities of medical practice it has come to constitute a special branch, and has given rise to a special neurological literature.

Amidst, and arising out of this diffused neurotic atmosphere, are to be met with many individuals exhibiting the early phases of mental disorder—individuals who are standing on the border-land of insanity, the limits of which, shading off imperceptibly into the regions of pronounced insanity, are more easily passed than traced. The restriction of these limits can only be effected by the closest attention. No much more distressing state can be imagined or experienced than that of the sense of impending insanity—the consciousness of coming madness, so accurately portrayed by Shakespeare's "King Lear." "Conscious of his mental state and its cause, he feels the goad of madness urging him

on ; he struggles and prays against it, and strives to put it from him. He knows its cause to be unbounded passion, and prays in well known words for that moral control which would avert it."

This dread of approaching insanity, a common form of melancholy, is the outcome frequently of hypochondriasis. This latter is to be distinguished from melancholy. The distinction was well drawn by the distinguished physician Cullen. (See passage quoted in Bucknill and Tuke, 1862, p. 353.)

Misanthropy, equally with melancholy, is, as Dr. Maudsley observes, "Madness in the making. Hence it is that humour, which is always imbued with sympathy, is a higher and more wholesome quality than cynicism, which is always inspired by contempt."

We are here on the border-land of insanity—a region in which the soil is often found to consist of indolence and morbid selfishness ; the produce yielded, desponding thoughts and melancholy reveries, which, for want of moral control or want of occupation, are suffered to overrun the mind with the deadly nightshade of imaginary horrors and evils. Despondency, which by a vigorous effort might be dispelled, gains strength by the concentration of attention upon self, and want of control of will over the thoughts. Morbid egotism thus thrown upon its own emotional existence, imagines itself the centre of all observation, or becomes the slave of religious excitement, impulsive desires, imaginary fears, or illusive persecution, until, like Jaques, it will "suck melancholy out of a song, as a weasel sucks eggs." Jaques moreover, may furnish the distinction between hypochondriasis or melancholy, and the melancholia of the insane. Dr. Bucknill, "Psychology of Shakespeare," says : "In him the judgment remained master of the direction of thought and the dilatation of feeling ; he cherished his melancholy, but if he had thought fit to do so he retained the power to oppose, if not to repress it." Herein," adds Dr. Bucknill, "is the psychical difference between the sane and the insane melancholist," with the additional essential difference that in the one case there are evidences of cerebral disease, which are wanting in the other.

History furnishes us with many notable examples of great men who have narrowly escaped the fate of the lunatic.

John Bunyan compared himself to the child, who, as he was being brought to Christ, was thrown down by the devil, and wallowed foaming. He believed at one time that he

had committed the sin that could never be pardoned—that he had sold his Saviour, &c. He would get out of bed, and go moping about the fields, wandering as a man bereft of life and past recovery. He shrank under hedges in guilt and sorrow, bemoaning the hardness of his fate. Yet all these grievous signs passed away, and left his mind clear enough to leave to all posterity his unequalled allegories, which, as Froude observes, “are still dear to men of all creeds.”

Of Cowper it were devoutly to be wished that his hypochondriasis had not landed him beyond the border-land of insanity. He laboured, during a large portion of his life, under the appalling notion that he had been from the beginning a vessel of wrath fitted and destined only to destruction.*

Luther, there can be little doubt, sometimes trod the very verge of insanity, as when he flung his inkstand at the devil.

Oliver Cromwell stood at one period of his life very close to the outer edge of the border-land of insanity, if even he did not for a time overpass its limits! “Dr. Simcott, his physician, assured Sir Philip Warwick that Mr. Cromwell, his patient, was quite a splenetic, and had fancies about the crop in the town; that he had been called up to him at midnight, and such unseasonable hours very many times, upon a strange phansy, which made him believe that he was then dying.”† “His nervous melancholic temperament indicates rather a seriousness too deep for him.”‡

At an early period in his life there is little doubt but that the gigantic intellect of Goethe came near to being shaken. His strongly impulsive and emotional nature quivered under the shock of disappointed first love. “The shock told upon both mind and body; he took to his bed with a fever that threatened the brain, and it was deemed prudent that the ex-tutor should occupy an adjoining chamber to watch over him.” How completely, however, he shook off the evil is known to all who are familiar, be it ever so superficially, with his writings.

Where a tendency to insanity exists, a warning of its approach is to be seen in change of character and disposition—more or less suddenly occurring. The supervision of

* Dale’s “Life of Cowper,” prefixed to Tilt and Bogue’s Edition of his Poems, 1841, p. 66.

† Noble’s Memoirs, Vol. i., p. 101.

‡ Carlyle’s “Heroes and Hero Worship,” 1842, p. 332.

eccentricities and peculiarities contrary to the usual habits and bearing; a perversion of the moral attributes, while the intellectual powers are but slightly, if at all, impaired. All these phenomena are not lightly to be disregarded; thus, if we observe the known possessor of right feelings and propriety, affectionate, respectful, dutiful, becoming the reverse of all these; if we find a devout person beginning to exhibit indifference to things sacred, becoming irreverent, profane, flippant; if we see a refined, modest woman losing regard for decorum and the amenities of society, becoming negligent, coarse, or indelicate; if a staid and industrious man becomes irritable, capricious, indolent, or dissipated, or carried away by schemes of imaginary wealth, &c., we must surely, in any one or all such cases, look for the accession of mental disorder, hallucinations, illusions, delusions—possibly, an outburst of suicidal or homicidal mania.

Among the changes of character indicative of the approach of mental disease, is the occurrence of aversion and antipathies towards former objects of respect or affection—a change so painful to those towards whom it is manifested, that it is usually the earliest to be noticed, and one that should by no means be disregarded. The change may be very gradual—so gradual that it may pass unobserved for some time, or be difficult of detection even when suspected. Inasmuch as insanity may with truth be spoken of as a waking dream, or, as Sir H. Holland well expressed the idea, a dream put into action as in somnambulism; so, when a person possessing usually a clear and practical energy becomes dreamy and abstracted, talking to himself, it will pretty surely come to pass that the change is but the precursor of the illusions and hallucinations of insanity.

Favourable thereto, and constituting marked features of impending mental disease, is seen the tendency to allow the mind to wander away from the proper duties of life, and luxuriate among scenes of the imagination, or of ill-regulated fancy—giving way to emotions disproportionate to the true relations of the objects which give rise to them—the habit of distorting and exaggerating events, and founding upon them conclusions which they do not warrant, as opposed to the will and sound exercise of the understanding by which events are contemplated in their true relations and consequences.

(To be Continued.)

CLINICAL NOTES AND CASES.

Cases of Choreic Convulsions in Persons of Advanced Age.

By M. D. MACLEOD, M.B. Edin., &c., Assist. Med. Supt.
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The three cases here reported present all the characteristic symptoms of chorea as it is known as a clinical entity—viz., incessant inco-ordinated muscular twitchings beyond the voluntary control of the patient, ceasing during sleep, and usually accompanied by a mental disturbance more or less marked. They present, however, some unusual features. The subjects were of advanced age (one a male patient aged 52, and two female patients aged 62 and 72 respectively), and in each case on post-mortem examination there was found a lesion affecting the motor area of the surface of the cerebral hemispheres. It is also remarkable that the two females were sisters.

I will first describe the symptoms during life, and then the morbid appearances, for the sake of readier comparison.

CASE I.—James F., aged 52, married, from Bootle, Chandler. Admitted 3rd September, 1873.

Is stated to have been a steady, sober man. His father died of "palsy." Had been known to be affected for six months, but he himself told me his complaint had been gradually coming on for about three years. He had been irritable, restless, violent, and refractory before admission.

On admission his mental state was one of slight dementia, with a great degree of irritability. He was very talkative, and as his speech was uttered in a jerking manner, it gave an idea of considerable incoherence to his conversation. The contortions of his body and the grimaces he made when he spoke rendered his appearance and conduct more insane than really was the case.

His memory seemed fairly good, and, if talked to patiently, he could answer ordinary questions. When, however, anything vexed him his chorea became more violent—so affected his speech, and, seemingly, to a certain extent, his ideas, that his conversation was quite unintelligible.

Bodily he was markedly choreic. His trunk, limbs, muscles of expression, his tongue, and his muscles of articulation, were the seat of constant inco-ordinate spasms or twitchings. These

* Read at the Quarterly Meeting of the Medico-Psychological Association, held in Glasgow 30th March, 1881.

twitchings were intensified by attempts at voluntary motion by emotional states and by any sensory irritation. It was subsequently found they ceased during sleep. There was some paresis of his legs, but he could walk about fairly well, except that his limbs were jerked about as he moved them. The right leg was weaker than the left. There was no apparent loss of sensation, and the special senses were normal, only that speech was jerking.

His temperature was $97^{\circ}\cdot6$, and his pulse 72. His lungs and heart, as far as could be made out, were normal. He was much emaciated, as he had been poorly fed for some time past. He had a ravenous appetite.

In a few weeks he got very fat, became quieter in conduct and less talkative. He, however, always remained irritable and childish.

No marked change was noticed in his case until the beginning of 1875, when his chorea increased, and he began to get thin. At this time also he became more demented, and some stupor was noted. Various remedies had been tried—the bromide and iodide of potassium, arsenic, iron, quinine, &c.—but without any benefit.

Towards the end of 1875 he got very feeble, and gradually lost the power of walking or standing. The general choreic spasms continued, and, along with the advance of the paresis, seemed to increase. It is recorded on the 1st February, 1876, that there was no apparent loss of sensibility. His memory and speech gradually failed. The stupor increased, and for some months before his death he passed his motions involuntarily. He died on the 18th February, 1876.

Up to the time of his death the choreic convulsions continued; only the day or two before he died, as he lay almost quite comatose, they decreased in intensity and frequency.

The other two cases are so remarkably like the foregoing that I will state them more briefly:—

CASE II.—Isabella S., aged 62, married, from Carlisle, housewife. Admitted 5th December, 1876. Had been an industrious woman, but “peculiar” in disposition. Her father had some disease which caused him to “shake all over” before he died. She had been ill for two years of her present convulsive disease, and lately had been very irritable and violent.

On admission—mentally she was childish, irritable, and fractious.

Bodily she was choreic all over. The spasms ceased during sleep. Senses (except “choreic” speech) and sensation normal. Considerable paresis of the legs. She was well nourished, and her other organs were healthy.

No change took place till January, 1880, when she got weaker and paralysed. Although both sides of her body were paralysed, her right arm, leg, and face were distinctly more powerless.

The choreic twitchings continued till death, but less intense and frequent on the right side than the left. Her mental powers

gradually failed, and for several weeks she lay in a state of great stupor.

She died 19th August, 1880.

CASE III.—Mary B., aged 72, widow, from Carlisle, housewife. Admitted 22nd September, 1879.

A sister of Isabella S. Stated to have been a quiet, steady woman. She had been affected for more than two years. Had been noisy at night before admission.

In this case the chorea was well marked and general. The convulsions ceased during sleep. There was no affection of sensibility. She was very feeble, and was paralysed in both her lower extremities.

Mentally there was great stupor. She was much emaciated. She gradually got weaker, more powerless over her whole body, and died 19th January, 1880. The choreic movements continued till death.

Post-mortem Appearances.

CASE I.—James T.

Nervous System.—Skull-cap thick, dense; diploë obliterated. The dura mater was thick and tough. Under the dura mater (which was incorporated with its upper wall) and over the vertex of each hemisphere, on each side, was a cyst lined with a dark—in some parts semi-purulent—layer of false membrane, evidently of old formation. In other parts this membrane was organised, and had vessels ramifying in it. These cysts contained ten to twelve ounces of dark bloody fluid, in which was suspended flocculent particles. The cysts extended in each hemisphere over the parietal lobes, the posterior part of the frontal lobes and down to the fissure of Sylvius. They touched each other at the falx, but did not communicate. Bands extended from wall to wall of the cysts. The vessels of the meninges were enlarged and varicose. The pia mater underneath was intensely congested and adherent to the parietal convolutions. The arteries of the brain were atheromatous. There were gliomatous bodies on choroid plexus. The pacchionian bodies were very numerous, especially on the left side. The brain looked small (weighed 42·5 oz.). The convolutions were atrophied, especially in the superior parietal lobes, the grey matter of which was much thinned. The brain on section was firm and congested. The peri-vascular spaces were well marked. The floors of the lateral ventricles were rough and granular. These cavities contained little fluid. The fourth ventricle was dry, its floor covered with large coarse granulations.

The cerebellum was firm, its white substance, pink in colour, full of puncta. The pons and medulla were firm on section, and somewhat congested.

The membranes of the spinal cord were congested. There were some lymph-looking opaque patches, about the size of a threepenny piece, on the anterior surface of its lumbar portion. The spinal pia

mater was congested and closely adherent. The cord, as a whole, was soft, and there were some minute greyish soft spots on its right anterior columns.

The other organs of the body were healthy.

CASE II.—Isabella S.

Nervous System.—Scalp and skull-cap normal. On removing the skull-cap the left side of the brain was seen to bulge, and there was a sense of fluctuation over the left hemisphere. On cutting into the dura mater of the vertex and sides of the left hemisphere seven to ten ounces of grumous bloody fluid escaped. Under the dura mater of the vertex and sides of the left hemisphere there was a cyst lined with a thick, dark-coloured false membrane. This cyst extended over an area of brain comprising the posterior part of the frontal and the whole of the parietal lobes of the left side. The dura mater over it was much thickened and congested, and the pia mater under this membrane, over the marginal part of the superior parietal lobule, was thickened and adherent to that convolution. The membranes of the right side were normal. The surface of the convolutions at the upper part of the ascending frontal, ascending parietal convolution, and the superior parietal lobule of the left side was depressed and flattened. The vessels of the brain were normal; the lateral ventricles were much dilated, and filled with straw-coloured fluid, especially the right. There were large gliomatous bodies on the choroid plexuses. The brain on section was firm, somewhat congested. The cerebellum and pons were firm, stained pink, and congested. The spinal cord was apparently normal.

The other organs of the body were healthy.

CASE III.—Mary B.

Nervous System.—The scalp and calvarium were normal. In the texture of the dura mater were several tumours. The largest, about the size of a chesnut, was situated on the upper part of the left hemisphere. There were clustered round it several small tumours, about the size of large peas. They pressed on the roots of the first and second frontal convolutions, and on the upper part of the ascending frontal and ascending parietal convolutions, causing a distinct depression in them—a thinning but not entire destruction of the underlying grey matter. In the anterior part of the falx cerebri was a small tumour, about the size of a pea. These tumours were of a hard fibrous scirrhus nature. The arteries of the brain were atheromatous. The brain on section was firm, pale, and seemed otherwise normal. The spinal cord presented no abnormality.

The other organs were normal.

In noticing the salient points of these cases, the age of the patients calls for remark. Convulsive diseases are common enough at all ages, but here we have convulsive diseases of a special clinical type which are rarely found after the age of

twenty years. Many such cases are recorded, but, so far as I could find, few of the reports give details.

Niemeyer remarks, in his chapter on Chorea, that "even the most advanced old age, however, is not entirely secure from it, and in such cases the affection exhibits a peculiar intractability." In Trousseau's "*Clinical Medicine*" mention is made of reports of cases in people in the sixties and seventies. A case is reported at some length from Camillo Golgi in Von Ziemssen's article on Chorea, in his "*Cyclopædia of Medicine*," of a man attacked in his 32nd year. The disease lasted for ten years, and at its commencement was accompanied by maniacal excitement. On post-mortem examination an affection of the corpus striatum and the convolutions in connection with it was found.

In the recent volumes of the "*Journal of Mental Science*" there are reports of three cases—one of a male patient in the Royal Edinburgh Asylum, aged 36, by Dr. James Maclaren, in Volume xx., p. 97. The disease was of six years' duration, and had been preceded by severe frontal headache. A brother of the patient had suffered from "brain fever." Amelioration of the symptoms had ensued under treatment.

Dr. Clouston has very kindly given me notes of the termination of this case. The patient remained unchanged for a year after the report (April, 1874), when all the mental and bodily symptoms became worse. By the end of 1875 he was decidedly more facile and childish, and the choreic movements more constant—very distressing and exhaustive to his strength. He died of exhaustion from chorea and from gangrene of the right lung on the 10th July, 1876.

The chief appearances observed on post-mortem examination were a thick, dense skull-cap; large pachionian bodies; dura mater adherent and thickened; pia mater thickened and milky, and extremely tough; a slight extravasation of blood to the extent of $2\frac{1}{2}$ inches under the arachnoid, involving the middle lobe of the right side, also the left, but less extensive; atrophy of convolutions, which were easily separable from the membranes; fluid under the membranes, obscuring the form of the convolutions. The atrophy was general over the surface of the brain. The base of the brain was healthy. An abnormal quantity of fluid in the ventricles; the brain substance bloodless, the grey matter pale and distinctly divided in two layers; the white matter pale. In the centre of the optic thalamus of the right side was a softened spot, about the size of a pea, of dark colour, but with no distinct clot. Gorging of the vessels

of the spinal membranes; congestion and staining red of the anterior columns of the cord.

Dr. Sutherland, in Vol. xxv., p. 308, puts on record a case in a woman aged 53. It was the second attack, and seemed to be of a somewhat hysterical nature.

Dr. Mackenzie Bacon records a case under his care, in Vol. xxvi., p. 203. The subject was a female, aged 58. This case closely adheres to the type of Dr. Maclaren's and my cases, with (as Dr. Bacon courteously informs me) the characteristic cessation of spasm during sleep. After death, "chronic arachnitis, a shrunken brain, and a large collection of serum in the ventricles" were the morbid appearances observed.

I am indebted to the kindness of Dr. Henry Barnes for the following notes of a case he showed me at the Border Counties Home for Incurables, at Stanwix, near Carlisle:—A woman, aged 47, had been the subject of chorea or choreic spasms for 38 years. At the age of nine she received an injury to the lumbar portion of her spine, which was followed by partial loss of power in her legs; spasmodic involuntary twitchings of the muscles of the calf of the left leg then appeared. These never ceased, but spread to the other limbs, and during the last nine years the spasms have become almost general over the whole body. The tongue can be protruded straight and kept out though there are spasms of the arms. She can put out her hands readily and directly to grasp any object.

The legs, face, and trunk are, however, markedly choreic, and there is considerable paresis of her legs. Voluntary movements or attempts to move increase the jerks. There is a cessation of convulsions during sleep. There is no loss of tactile or ordinary sensation, and the sensibility to heat is normal. With regard to the mental state, she is decidedly childish. The patient had been subjected to a hard life, and was ill-used by her step-mother. Latterly she was addicted to alcohol and opium.

The question of heredity as having some effect in the causation of the chorea, or, at least, in bringing about the type of convulsion, presents itself. In my three cases hereditary predisposition existed markedly in the two females, who were sisters, and whose father had some "shaking" disease before he died.* In the case of the male it is not so apparent. His father, he told me, had "palsy." A brother of Dr. Maclaren's case had "brain fever"—probably some meningitic disease.

* Since writing the above I have been informed that two brothers of these women are choreic.

Coming now to the morbid anatomy, we have in those cases a distinct coarse lesion affecting, and limited to, the motor area of the brain surface. These lesions began as irritative lesions, but became in the end destructive lesions, and progressively so, as may be seen by the gradual advance of motor paralysis in each case.

The patients not having been seen till the disease was advanced and the convulsion general, it can only be a matter of conjecture where the irritation commenced. In Case I. the lesion was large, with arachnoid cysts, and bilateral; in Case II. the lesion presented the same appearance, but was confined to one hemisphere; while in Case III. tumours pressing on one side only of the brain were found. In the latter cases the disease was of the left hemisphere, yet the chorea was on both sides of the body. Had the earlier history of the disease been accurately obtainable, it might have been found that the convulsions were at first confined to one side of the body or to one limb, in all probability the right side and the right leg. The origin and progress of the chorea in Dr. Barnes' case is more or less traceable, as commencing in the left leg, proceeding up the limb; then attacking the other leg from below on to both sides of the body and face, the arms being still comparatively unaffected. Bilateral convulsions, where the lesion is one-sided, may be explained by the views of Dr. Broadbent, which go to show that centres giving rise to movements which are associated together are bilaterally coordinated through communicating fibres between spinal nuclei or some higher centres. An irritative lesion of the one side may then, through organic connection, gradually produce perversion of function of the associated centre on the other side.

In Dr. Maclaren's and Dr. Bacon's cases the lesion of the motor area is not so apparent; yet the extravasation of blood over the middle lobes, and the marked traces of inflammatory diseases in the membranes, in the one case, the chronic arachnitis in the other, point strongly to irritation of the surface of the hemisphere.

I feel that these reports are not so definite or complete as to warrant any conclusion relative to the pathology of chorea being drawn from them. They tend to show, however, that in chorea neither a specific morbid appearance will be found, nor that the disease is likely to be the result of any one pathological state, but that chorea and choreic convulsions are due to irritation of the motor centres of the cerebrum.

Chorea in an Aged Person. By T. W. McDOWALL, M.D.

As an appendix to Dr. Macleod's paper, I may give the following facts relating to a woman at present under my care at Morpeth:—She was admitted in May of last year. The medical certificate stated that she had an imbecile look; that she could not talk rationally; that her memory had failed; that she was extremely dirty in her habits; that before she was taken ill her disposition and conduct was quite different; that she was liable to outbreaks of temper and excitement.

Only an imperfect history of her illness could be obtained. She is now 49 years of age, and married. It is said that she was in good health, perfectly sane, and attended to her husband's duties up to the age of 34. At that time, 15 years ago, a "sort of St. Vitus' dance came on her," and she became "hazy" in her mind. No information as to the further progress of the bodily illness could be obtained, but she gradually became more demented. She had her last child five-and-a-half years ago, and since then she has become decidedly worse. She has gradually lost the power of walking and standing, and lately has given so much trouble to her relatives that they could not nurse her any longer. At times she had been noisy and excited. She has been married 23 years, and has had six children and two miscarriages. Her children are all healthy and intelligent. One sister and her grandmother were insane, but not in an asylum.

Her condition on admission was as follows:—She is confined to bed, being unable to sit or stand. Her favourite position is on her right side, her legs considerably drawn up, and her naked feet pushed as far out from the side of the bed as she can get them. If a chair be near her bed she makes quiet but persistent efforts to place her feet on its back. Should she succeed in this she remains in this position till the nurse tucks her up in bed again. Her face, when in repose, has a decidedly demented expression, but the eye is still quick and intelligent enough. The hair is iron-grey, short, scanty, and brittle. Eyes are rather sunken in the orbits, and the lids are pigmented, especially the lower. The pupils are normal. The body is fairly well nourished, and there is no diminution of the muscles of the limbs. She is not at all like a person who had been confined to bed for a number of years suffering from organic disease. There is a large, firm, brawny, swelling on the right side of the chest, on the inner wall of the

axilla. Two sinuses upon its surface; these do not level to bone. There is a similar swelling, but not so advanced, immediately below the right clavicle. It is evidently glandular. The mamma is free from disease. There is some redness over the right hip, caused by lying in a wet bed.

Choreic movements are limited to the muscles of the face, and to those causing flexion and extension of the fingers, toes, and ankles. The muscles of the face contract moderately quickly, but by no means so quickly as is usually seen; whilst the fingers and toes move in such a deliberate manner that one is strongly reminded of the peristaltic contraction of the intestines. The movements cease during sleep, but are exaggerated when she feels herself under observation. Although there appears to be no paralysis, in the usual acceptance of the word, the patient's limbs are really of no use to her. She cannot sit or stand, cannot put her legs down in bed; if they are pulled down she resists, and draws them up again. She cannot hold a spoon, but manages to draw a corner of blanket near enough for her to catch with her teeth; then she appears pleased, and continues chewing, if unobserved, till she has swallowed a square inch or two.

The systems are generally normal. She cannot put out her tongue. When asked to do so she only opens her mouth widely. She is occasionally wet and dirty, but can be kept clean if attended carefully.

In regard to her mental state, she may be described as very demented. She can answer a few simple questions briefly. She speaks slowly and indistinctly, and she evidently is disturbed by the involuntary movements of the mouth. Instead of answering, she sometimes repeats questions. Her memory is very defective. It cannot be ascertained whether she has any delusions or hallucinations, though it is possible she has, for when asked why she weeps so loudly she may say because of her children, or make some foolish answer, as, *e.g.*, that she sees a regiment of soldiers.

As to her condition now (March, 1881), it may be said that no real change has occurred. Though still confined to bed, she has not deteriorated physically. Occasionally she has been noisy at night, weeping loudly for her children, and at the same time uttering unintelligible noises. Although the muscular movements, in the course of some months, may vary slightly in intensity, especially in the fingers and toes, they remain, on the whole, as before.

I have more than once been tempted to record this case as

one of "athetosis," for it has many of the features ; indeed, when the movements are marked in the fingers and toes, and have almost ceased in the face, the case might pass as a typical example of it. I have always considered that disease, as described by Hammond, as simply a form of limited chorea, and quite undeserving a special name and description, but where authorities differ, my opinion may not be thought of much weight.

On the Use of Hyoscyamine.

1. Remarks by Dr. G. M. BACON, of the Cambs. Asylum.
 2. Cases, with Remarks, by Dr. HILLS, of the Norfolk Asylum.
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(1) DR. BACON'S REMARKS.

I venture to offer my experience of the use of the above drug for the purpose of comparison with that of other observers. I am anxious not to appear as an *advocate* of this or any other medicine, having a rather limited faith in the efficacy of drugs in the treatment of disease. It is so difficult to be sure that the results observed are fairly due to the ascribed cause that it is but seldom that any drug can be credited with a direct curative effect. The effects of most medicines are so uncertain and indefinite that it is well-nigh impossible to attribute any positive results to their administration in the face of so many disturbing causes. In dealing with potent drugs the case is different. When the toxic effects of an agent are produced it only remains to ascertain whether these are beneficial or not. For this reason it is easier to pass a judgment on the value of such a drug as hyoscyamine than of morphia or chloral, &c., because its affect is obvious and ascertainable. I will not now discuss whether it is good to give a sedative or not, but only relate my experiences. The preparation I have used has always been "Merck's extractive alkaloid," dissolved in spirit, for convenience, of the strength of one grain to a drachm of spirit. I have never given more than $1\frac{1}{4}$ grain, and I usually give either one or two-thirds of a grain as a dose. If one-third does not bring sleep, I double the dose. The usual effect is to send the patient into a heavy sleep in half-an-hour, or even less time, and this may last for six hours, or even more. I have very seldom found it produce sickness, and not, as a rule, interfere with the appetite. I fancy, from

what one or two patients have said, that it produces a sensation of fulness and throbbing and headache, and I have seen the face congested and the prolabium purplish. The pupils are widely dilated. I have used this preparation for two years past, and have found it very useful in many cases. I have given it in cases of acute mania, of general paralysis, of chronic excitement, and may safely say it has been of greater use than any other narcotic I have employed. In acute cases, where it is difficult to get medicine down at all, it is a point to be able to give one small dose of fluid and be sure of quieting a patient for several hours. This cannot be ensured by chloral or opium, as the consequences of a dose of Batley, &c., &c., can never be reckoned on, and sickness leaves the prescriber in ignorance of how much has been absorbed by the system.

In chronic cases one dose a day will quiet a patient without reducing him or her to a comatose case, for very frequently he or she will wake up after four or five hours, take a meal, and remain much more composed.

In one case—that of a female general paralytic—I gave this drug for several months off and on, and for a long period daily, or twice a day, in doses of three-quarters of a grain. Not only did this not injure the patient, but she got fat, took plenty of food, and ended by getting more tractable and sensible. It seemed to lose some of its force after a time, but always composed her. I have only met with one case which resisted the usual effects of a large dose, and that was in a young woman with a second attack of acute mania, who was very noisy and excited, and on whom it produced but little sedative effect, although it dilated the pupils.

I also tried it in a case of recurrent mania—that of a man who was liable to attacks of excitement, which used to last for weeks together. On four separate occasions I treated him with single doses of two-thirds of a grain of hyoscyamine once in every 24 hours, and on the first he recovered in eight days and on the subsequent three in 16 days. This was a decided improvement on weeks of previous nugatory treatment.

I considered it likely that hyoscyamine would be a useful remedy in delirium tremens, and at the Cambridge Medical Society in June, 1880, I made the suggestion. Since then two gentlemen practising there have tried it, and told me they met with most gratifying success.

I wish, however, to state what dangers or disadvantages I know of in connection with its administration, and I will give three instances which have occurred within my knowledge.

I was called in once, by chance, to see a lady of title, for whom I prescribed a quarter of a grain of hyoscyamine for insomnia, but, owing to some misunderstanding, she only got not quite half the dose I ordered. The result was the lady became delirious, agitated, and excited, and a great hubbub arose in the house. Nothing could induce her to repeat the experiment.

In another case a medical man, suffering from locomotor ataxy, wrote to me, in consequence of reading in the *Lancet* of my remarks on this drug, asking for a dose. I declined any responsibility for the prescription, but sent him two or three doses, with instructions what he might safely take. The result was, in his words, "disastrous," and I give his description of his experiences, as graphic as it is painful:—

"I took the dose, and slept well all night, but next day I hardly knew what I was about, and the ataxy pains much increased, with utter want of appetite and tendency to vomiting. . . . The second night I took *half* the dose you prescribed. This did not give me sleep, but produced instantly a great flush over the face and body. I was told by those who sat up with me that my brain was full of hallucinations, the pupils very dilated, and the cheeks puffed out. I, of course, have taken no more, but it acted upon me as an irritant poison, and I have only just now got rid of its effects. It especially affected the cerebro-spinal system and stomach and upset all my habits with regard to other medicines. I consider it a most dangerous medicine, and it should be used with the greatest caution."

In a third case the patient met with a curious accident. He had taken several previous doses of the medicine, and took one about an hour after a meal of bread and tea only. About four hours afterwards he vomited while he was so far narcotised as to be unable to rouse himself, and as a result, some of the semi-fluid contents of the stomach regurgitated into his larynx. I was summoned hastily, and told he had had a "fit," but on examination I found that his mouth contained particles of bread and other food, and I got these out as well as I could. I then found that his left lung was obstructed, clearly by the impaction of food in the bronchus. The man recovered, but I thought tracheotomy would have been called for, and his life was in some danger for two or three hours. I record this "accident," but it need not be more of a reproach to hyoscyamine than opium, had the latter been given.

G. M. B.

(2) CASES RECORDED BY DR. HILLS.

Dr. Hills says :—

For several months past I have been trying Merck's extract of hyoscyamine in the treatment of cases in the Norfolk Asylum, with a view to testing its utility in comparison with other drugs commonly used in the cases that occur in public asylums. I may say at once that in the majority of cases the result has been very successful. I append notes of several cases in which the results have been recorded pretty closely, but I may add that I have tried the drug in many other cases of mania with satisfaction. In cases of recurrent and of chronic mania it appears to be most especially valuable. In acute cases, when other sedatives have been repeatedly tried and failed, a small dose of hyoscyamine given early in the morning may quiet a patient who has been violent and excited for days, without producing any sickness or impairment of appetite.

In cases of recurrent mania it has been tried with eminent success. In many instances a small dose, administered in tea at breakfast acted as a calmative, and moderated the violence and destructive habits of the patients to whom it was given. In several cases of chronic maniacal excitement, when other sedatives had failed, hyoscyamine had the effect of tranquilising the patient and rendering him more manageable. In some cases even a small dose produced sickness of a distressing character, a tottering gait, and great prostration, but these were quite the exception.

In all cases it produced dilatation of the pupil, impairment of vision, and an unsteady gait. The physiological action of the drug was, as a rule, produced in from one to two hours. During the four or five months that the drug has been given it has been found that the patients taking it have slightly decreased in weight, but this loss might as fairly be attributed to the constant excitement and wear and tear as to the action of any drug.

The cases recorded below tell their own tale, and, without wishing to exalt the virtues of any drug, I cannot but say that in my opinion we have a very useful remedy in Merck's extract of hyoscyamine.

Two Cases of Acute Mania. (Females.)

I.—M. A. N., æt. 31, married; admitted Jan. 26th, 1880. Insanity hereditary.

From the day of her admission, now nearly a year ago, she has

been noisy and excited, at times very violent, and invariably dirty at night, destructive in her habits, and most incoherent in her conversation. So unmanageable was she that the sole attention of two attendants was monopolised. During the first eight months of her residence various sedatives were given, with very indifferent results, and without the desired effect of quieting and rendering her more manageable.

In September, for the first time, she was given a dose of solution of hyoscyamine, containing one grain of extract to the fluid drachm. Fifteen minims of this were given her before breakfast. There was neither nausea or vomiting; she took her meal well, and within an hour and a half she was quiet and tractable, and sat quietly where she was placed in the ward, the following physiological facts being observed:—

1. Pupils were widely dilated
2. Secretions not checked.
3. No dryness of fauces.
4. Pulse rather increased in volume, but normal in rapidity.

When spoken to she answered in her usual incoherent way. This effect was only of short duration, for after four hours' quiet the influence of the drug seemed to exhaust its powers, and she relapsed into her usual excited and destructive condition, and could not be left for a minute. On the succeeding night she was dirty, as usual, and slept but little.

The following day fifteen minims were again given, with similar effect.

The dose on the third day was increased to twenty minims, and this had the effect of controlling her excitement and carrying her through the day. Physiological effect was much the same as on first day. Did not affect her appetite, nor did it produce nausea or sickness. During the last four months, as a quieting agent, it has been constantly given to her. No particular tolerance of the drug was at all well marked, for twenty m. of solution daily produced the same effect. Since its administration she has gone as many as four days without the medicine, during which time her habits have been cleanly at night, and during the day she has been no particular trouble. Her conversation, however, was as incoherent as ever. Whenever, however, she became restless and unmanageable a dose of her medicine was given, with certain beneficial effect. On several occasions a second dose was given at bedtime. During the night she was quiet, slept well, and her appetite did not fail, and when excited she now takes twenty m. in her tea at breakfast. At menstrual periods, when she is, and always has been, more excited than at other times, she is allowed to remain in bed, and no drugs are administered.

She has decreased a few pounds in weight, a loss which might otherwise have occurred from her being in a constant state of maniacal excitement.

Acute Mania.

II.—A. M., ætat. 41, single (paternal grandfather insane). A previous attack. She was admitted in July, 1880, in a restless, noisy, and excited state, most incoherent in her conversation, and almost unmanageable. During the first fortnight of her residence here she was in the condition above described. Took her food very badly, and was constantly struggling, and to prevent her being very seriously injured or bruised in the attempts made by attendants to restrain her, she was placed in the padded room, where, from maniacal exhaustion, she nearly expired. However, with persistent attempts at feeding and occasional doses of bromide and chloral—which invariably tranquillised the system and produced sleep for some hours—she slowly recovered, and became so much better that, assisted by a person on either side, she could walk into the dining-room, where she sat quietly, and was able to answer questions regarding herself correctly. This condition, however, was only of temporary duration, for she relapsed into the excited and unmanageable state before described, and during the months of August and September was a constant source of trouble and anxiety, upsetting chairs and tables, smashing crockery, &c., if left only for a moment. To complete her toilet has now become a most difficult operation, and it is all that two attendants can do to dress her without using necessary force. Various combinations of sedatives were given, in the shape of bromide of potassium and chloral, chloral and nepenthe, morphia, &c., without producing any evident beneficial effect, for when given in sufficiently large doses to quiet her for any length of time sickness and distaste for food was the result, and they had to be discontinued.

For the last four months hyoscyamine has been regularly given to her, commencing with ten minim doses of solution, in her tea at breakfast time. The effect of this was to tranquillise and humanise her, for within two hours of its administration she was quiet and easily dressed by one attendant. Pupils were dilated, her gait was rather tottering. This dose did not produce sleep. She did not refuse her food, and, with the assistance of an attendant, walked about in the airing ground. As the effect of this dose was only of temporary duration (two to two-and-a-half hours), after some days' trial 15 m. were given, and this dose rendered her, and does still, quiet and manageable from the time she is got up, at 10.30, until about four in the afternoon, when the action does not seem to have any influence, and she is noisy and destructive, and requires, as she does without it, the attention of two attendants. Seven weeks since she did not seem very well, and was thinner, had lost several pounds in weight, and her features looked pinched and blanched. The drug was ordered to be discontinued, and a week's rest in bed was given to her, and the most nourishing diet—beef tea, milk, eggs, &c. During this time she was very excited, and at the expiration of the week the usual difficulty in dressing her ensued. No medicine of any sort was

administered for some days. She was extremely unmanageable, and several bruises were unavoidably inflicted by her attendants in the attempts made by them to restrain her from breaking furniture, &c. Being in much better plight, and having overcome her attacks of indisposition, hyoseyamine was again resorted to, in doses of 15 minims, with the most satisfactory results, acting as a calmative, allaying her furious excitement without any injurious effect, for she takes her meals well and regularly, and during the last seven weeks has gained flesh and weight. Larger doses of 20 minims were on several occasions tried, they on each occasion producing sleep, but from which she awoke quiet and manageable.

Four Cases of Chronic Mania. (Females.)

I.—J. P. E., ætat. 31, married. Hereditary influence ascertained; subject also of previous attacks. Re admitted in April, 1880. Very irritable in temper, filthy in her habits, and most destructive. Is very stubborn, and, if in any way thwarted, is inclined to be very violent. From the time of her admission until November various sedatives, alone and in combination, were tried, with little or no beneficial effect, for she was quite as destructive and mischievous, and could not be left without an attendant for a moment.

In the beginning of November 15 minims of the hyoseyamine solution were administered in her tea at breakfast time, and this had the effect of rendering her quiet and tractable. It produced, as in other cases in which it had been tried, dilatation of pupil and an unsteady, tottering gait. She does not attempt to destroy her clothing as formerly, and sits quietly all day long, giving no trouble whatever. Her appetite does not suffer at all, for she takes her food as heartily as formerly. As her habits are very filthy at night, 15 minims were several times administered at bedtime, with favourable results, for she has been clean in the morning. When, however, it has been given twice daily the effect was too stupifying, and she did not take her food well. For the last three months she has daily had a 15 m. dose. No ill effects are at present apparent; she has not lost weight, takes her food well, and is more cleanly in her habits. During the catamenial periods she is, and always has been, more violent than at other times. The use of the medicine is then suspended, and she is kept in bed.

II.—M. B., ætat. 31, single. Admitted in 1872.

She is a tall, powerful girl, the subject of recurrent mania. When first admitted the interval between the attacks of mania was of longer duration than it has been for the last two years. During this time she has had more frequent periods of excitement, which last about three weeks; she is then most violent, attacking patients and attendants without any provocation, and her habits on these occasions are dirty and objectionable. Until the last three attacks various combinations of sedatives were tried, but they had no effect in controlling her fury.

In the intervals between these outbursts of mania she is quiet, industrious, talks sensibly, and makes herself very useful in the wards.

Hyoseyamine has now been given with most satisfactory results. A dose of 15 minims, given in the morning, quiets her during the day and night, and sometimes during the second day. In her it produces no unpleasant effects whatever; she takes her meals well, and walks quietly about the wards and corridors. She attempts to work, but on account of her widely-dilated pupils is unable to see clearly. Since the administration of the drug she appears to get more quickly over her attacks, the duration of her excitement being only about a fortnight, and the lucid interval between is not in any way shortened. It never fails in its action in rendering her quiet and manageable, not violent as heretofore, and she can be allowed with safety to walk about the ward without any fear of her attempting to injure any one.

III.—J. G., *etat.* 29, married. Previous attack. Present attack of more than a year's duration.

Admitted here in June, 1880, from the Essex Asylum. For some time no medicinal treatment was resorted to. She, however, became more maniacal, very violent at times, and destructive. Various drugs were tried, but without much beneficial effect. In November 20 minims of the solution of hyoseyamine were given, and it had the effect of quieting her without producing any apparently injurious effect, and during the last three months she has almost daily had a dose, excepting at the catamenial period, when she is allowed to remain in bed; and on one occasion, when she was for ten days tried without any medicine at all, this time she was excited and restless, and had to be restrained from rushing about the place and upsetting the furniture, &c., and violently attacking those around her. At the expiration of the ten days it was again resorted to, with the same certain effect. A smaller dose of 10 minims has on several occasions been tried; this, however, seemed rather to excite than tranquillise her, and a second dose had to be given before she was rendered at all manageable. In this case a 20 minims dose has never produced sickness or nausea, nor has it affected her appetite, for she takes her meals well and regularly. She has decreased a few pounds in weight, but does not look any worse for the continued use of the drug, which, as before said, never fails within one hour to one-and-a-half of its administration in producing its effects. She is now, under its influence, quiet, not destructive, and, on the whole, cleaner at night than she was.

IV.—E. B., *etat.* 43. Duration of mania, two-and-a-half years.

Admitted here in Nov., 1879. Since her admission her conversation has always been most incoherent, her manner flighty, and at times she has been disposed to be violent and destructive. She has a wild appearance, is constantly wandering about and muttering to herself. She has always been subject to paroxysmal outbursts of excitement,

and is violent when thwarted. For some time bromide and chloral had the desired effect of rendering her more manageable. This, however, soon failed in its action, and chloral and nepenthe were substituted, with beneficial results, for a time only, however, for these like the chloral and bromide, after a time failed to quiet her.

In November she was much more troublesome than she had been for some time, and as other drugs had failed, hyoseyamine was tried, with the following effect:—15 minims were given immediately after breakfast. In her case it produced nausea and vomiting; she could not take food, and was for some hours very prostrate. After it she was quiet and manageable for two days; she then relapsed into her usual excited condition. Small doses were subsequently tried, but with similar unpleasant effects, and on this account the drug had to be discontinued.

Vomiting came on within an hour of its administration; pupils were widely dilated, and her gait was very unsteady. She was not, however, at all sleepy, but sat quietly wherever she was placed. Her features looked pinched and rather flushed. There was dryness of throat, and the patient's voice was hoarse.

Two Cases of Recurrent Mania. (Females.)

I.—S. S., ætat. 38. Admitted 1862. Since her admission here she has been subject to frequent attacks of excitement, when she is very violent and dangerous; and although at one time useful in the wards, she is now incapable of doing any work at all.

For the last two months (1881), during her paroxysms of excitement and violence, hyoseyamine has been given with certain beneficial result; it controls her, and she can safely be left to her own resources without any fear of her attempting to violently injure any one.

Twenty minims of the solution were at first given, but the effect was too powerful, producing sleep, from which she awoke drowsy and unable to stand.

After several trials, it was found that a dose of 12 m. had the effect of rendering her quiet and manageable without impairing her digestion or reducing her weight. Toleration for the drug does not seem to be at all established, and 12 m., whenever it is necessary to give it to her, never fails to tranquillise her.

In this patient, as in the other cases in which it has been tried, the drug produces dilatation of the pupil, temporary impairment of vision, and an unsteady gait.

II.—S. W., 45. Admitted 1860. Since her admission she has been subject to attacks of recurrent mania, when she has been restless and very destructive, tearing up anything she could get hold of, breaking chairs, &c. Latterly, during her paroxysms of excitement, hyoseyamine has been administered with greater success than any other drug or drugs that have yet been tried. It is now given to

her in her tea at breakfast time. A 15 m. dose of the solution in about an hour-and-a-half renders her quiet and manageable; she speaks when spoken to, and walks about the ward without tearing and destroying articles as she formerly did. The duration of the attack of maniacal excitement is not at all prolonged by the administration, for after a certain period (generally about a fortnight) she gradually settles down and remains quiet, until after a little excitement, or without any known cause, she becomes noisy and destructive again. The hyoscyamine is then again resorted to, and a daily dose of 15 m. has the desired effect. In this case also no toleration appears to be established by its continued use, for a 15 m. dose administered daily never fails in its effect. It has never produced any unpleasant symptoms—no nausea or vomiting; she does not lose flesh, and never refuses a meal. The pupils, as in the other cases in which its action has been tried, are widely dilated, and the patient is able to discern near objects. Of all the drugs tried, hyoscyamine is certainly the most satisfactory, for to render her at all peaceful by the administration of other sedatives, such as chloral, bromide, opium, and its preparations, &c., large quantities had to be given and repeated during the day; her digestion then became impaired, and there was a disinclination for food. This state of things has not yet manifested itself while she has been taking hyoscyamine, and her health does not seem in any way to be affected.

Case of Acute Dementia of rapidly Fatal Termination. By
BONVILLE B. FOX, M.B., Resident Medical Officer, Bris-
lington House.*

Cases of recent insanity having a speedy fatal termination in young and fairly healthy subjects are fortunately sufficiently uncommon to claim some attention when they do occur, and more particularly so when the co-existing mental symptoms would place the case in a series in which, as a rule, life is but little endangered. This is my reason for venturing to bring before this society to-night notes of a case of what appeared to be acute dementia in a young woman, ending in death in about six weeks from the commencement of the malady; and if I go somewhat minutely into details, I must plead as my excuse my desire to make it plain, that this case, which presented in the first instance, some anomalous symptoms, could not, upon the whole, have been correctly assigned to any other class.

* Read before the Quarterly Meeting of the Medico-Psychological Association, March 9th, 1881.

A. M. A., a governess, aged 18, unmarried, was admitted into Brislington House on August 4th, 1880.

Her previous history was fair. She was a good, hard-working girl, who had given no anxiety to her mother, with whom she was on very good terms. She had grown fast, and recently had not been strong, but had suffered from no severe physical disorder save an attack of what was termed "Pleurodynia" three years ago, since which she has always been rather weakly. It should be stated, however, that she has felt "pains in the spine" for some years, much worse at the monthly periods. For these Dr. Ringer, three years ago, prescribed blisters and zinc, and she was much benefited. She has had no previous attack of insanity, and has shown no nervous tendency, though she has always been inclined to be solitary, and to form strong attachments and antipathies.

The family history is poor. Her paternal great grandfather and three paternal great uncles were insane. Two of the latter cut their throats. Her father is very "excitable," and a paternal aunt is described as being very "queer" and a great spiritualist. There is phthisis in her mother's family, but not affecting any near relatives.

The cause of her insanity is a little uncertain. With her mother she had for some time past been fighting a hard battle against adversity, and recently it had seemed as if brighter days were in store for them, as the mother had high expectations of gaining a position in which they could have lived together in comfort. Their hopes had quite recently been entirely frustrated, and while the mother bore up bravely, the daughter, overgrown, weakly, and hereditarily tainted, drooped, and never seemed the same person.

For the history of her disease prior to admission I depend on her mother's account. The first symptoms appeared about the middle of July, when she paid an unusually protracted call on a stranger. She gradually showed great self-will and hostility to her relatives, and became more or less unmanageable. She expressed a special dislike to her mother, to whom she had always been very affectionate. She wished to sell her clothes, and had distinct delusions—at first that men had violated her and that she was a widow, and subsequently of a distinctly exalted nature—viz., that her mother was lady-in-waiting to the Queen at Windsor, and that owing to an exchange of infants at birth she (the patient) was really Princess Beatrice. It may be worth while to notice two points in passing—(1) that menstruation which should have occurred a fortnight before the commencement of her insanity, was delayed for three weeks, and appeared at the same time as the ideas of her violated virginity, so that these may have had a physical basis in the disturbance of her generative organs; (2) the exalted ideas in one who had been for long struggling with poverty, and doubtless building castles in the air, which, her judgment once unhinged, thus lost their shadowy appearance, and assumed real tangible forms. Her mother went on to state that she was

feverish, and her nose and mouth seemed to swell. In four days her mind appeared to be quite gone. Her sleep was poor. She refused all solid food, but took milk. She became weaker and thinner. She had no cough.

On admission she answered to the following description :—

She is a tallish, overgrown, and strumous-looking girl, fairly well nourished. She cannot walk, but totters along between two attendants. She can do nothing for herself, is absolutely unemployed, and lost to what is passing around her. She sits all day in an arm chair, with a peculiarly silly and vacant expression on her countenance, her very large mouth wide open, and between her coarse lips saliva either dribbles away or accumulates and dries. Her face is of a greyish and most unhealthy hue; the skin is coarse and greasy; her eyes, half concealed by the drooping lids, lack lustre. Her head, large, round, and flattened, lolls from side to side as if too heavy to hold erect. Here, indeed, the muscular power was “the pulse of the mental affection.” The glance is wandering; the pupils are dilated, but equal and active. Her imbecile restlessness made attempts at ophthalmoscopic examination fruitless. No strabismus; no heat of head or of general bodily surface. Partly does not hear, partly does not understand what is said to her, and answers either not at all or in a very slow and unintelligible manner. There is considerable failure of articulation, and beyond a statement that she is the Princess Beatrice, and an occasional monosyllable, nothing can be made out of what she says, though she is constantly jabbering into space or to any one near her. She looks at one in a half imbecile, half loving way, and is fond of taking one’s hand and gazing into one’s face. She is quite inattentive to the calls of nature, and it is hard work to get her to take any food. There may be a real difficulty in swallowing from her enlarged tonsils, and her lips are swollen, as we sometimes see in strumous persons. Her tongue is tremulous, red, dry, and fissured. The bowels are constipated. Pulse 120, very feeble; urine healthy. A careful physical examination was made, especially of the heart and lungs, but no disease was discovered here or elsewhere. There is certainly no spinal curvature, and no tender spot either in the back or cranium. No complaint of headache. Her back is covered with acne.

Her mental condition seems to be acute dementia, with alarming asthenia.

August 10.—Six days subsequent to admission weaker in body and mind. She can’t support herself for a moment on her legs. Pulse 140, very small and compressible. Coaxing has induced her to take some food. This has been supplemented by the stomach pump. Rarely tries to speak; never articulates. She is so lost that the stimulus of food in her mouth fails to excite deglutition. Lies passively in bed, apparently often asleep.

August 11.—Worse. Countenance more ashen; eyelids more

drooping, and muscular relaxation and other signs of debility more pronounced. She is kept in bed, and as warm as possible, but despite all efforts her extremities are cold, and large bullæ have appeared on each heel. Her evacuations are all passed under her. She is immediately changed, and every care taken to keep her dry and clean. Fed with stomach pump thrice daily—once with fresh milk and twice with the strongest essence of beef and vegetables. Each injection also contains dissolved Brand's essence of beef, Sp. Vin. Gall., $\bar{3}$ j. Tr. Digitalis, m x.; Sp. Ammon. Aromat., $\bar{3}$ j.

From August 12 to 18 the same system of treatment was pursued, and she appeared to respond slightly to it, to just hold her ground, and to become, perhaps, a little more animated. The pulse, however, did not improve, and bullæ developed on the anterior surface of both legs, on the anterior and inner surface of both thighs, and on the back. The catamenia appeared, and lasted four days without seeming to affect her state appreciably. From time to time she took a little milk and jelly voluntarily.

August 19.—Took enough food; no stomach pump necessary.

August 20.—Refused all food. Alarming prostration, in the face of which the pump was resumed. To-day a threatening abrasion, of the size of a five-shilling piece, appeared over the sacrum, with a tendency to spread to the left. Dressed with hardening lotion. Water pillow ordered, and quinine added to injection.

August 21.—Bedsore has increased in depth and extent. Patient appears weaker despite the quantities of nourishment poured into her. This consists daily of $1\frac{1}{2}$ pint of fresh milk, $2\frac{1}{2}$ pints of essence of beef and vegetables, three tins of Brand's essence of beef, brandy five ounces, and bark. The pulse has not been controlled by the digitalis, and is now 140, and very weak.

August 23.—No improvement. The bedsore is extending nearly to the left trochanter, and is of formidable dimensions. The right side is sound. There is no other unilateral symptom. The bullæ were equally distributed, and motion and sensation, such as they are—and both are diminished—are equal on the two sides. She was evidently sinking, and her friends, having a strong aversion to her death taking place in an asylum, removed her to day, on a water bed, to a neighbouring village. We were subsequently informed that she bore the journey of a mile and a half fairly well, but almost exactly 24 hours after her removal her breathing became hurried, and she quickly expired. As she was under the care of a medical man, no doubt all her necessities, including feeding, had been attended to. Under the circumstances we were unable to procure a post mortem examination.

I have already occupied so much time, that what few remarks I have to offer shall be as brief as possible. The first difficulty that met me was one of classification. Whilst under my observation, this case never presented any symptom which

would have entitled it to be called anything but pure dementia. I am aware that Griesinger states that nearly all cases of acute dementia are really cases of *melancholia cum stupore*, and in my short experience I have seen more than one instance of this disorder in which most rapid and alarming asthenia occurred, only stopping short of death. But there was never a sign of melancholy in our patient. Stupor to a considerable extent there was, but no sadness, fear, or terror in her expression or utterances, or any of the intense self-absorption and concentration in one overwhelming idea of woe that we see in the motionless gaze and attitude of the melancholic.* On the contrary, silliness and fatuity, a more or less "psychical void," with blunted perceptions, were plainly manifested, a condition, as I believe, of true dementia. Whether or not this state was really primary, or was secondary to brief mania, I cannot say. But I should think the former was the case. Dementia it certainly was when she came under our care, not one month from the commencement of her insanity, and it is rare, I should presume, for mania (especially of a sub-acute form as hers must have been if it ever existed) to merge into dementia in so short a time. And if it be allowed that the nomenclature is correct, is not the course of the case a very unusual one, and the co-existing physical symptoms extremely uncommon? From the point of view of mental recovery we do not look un-hopefully on acute dementia, and for the life of our patient we have few or no fears. Gangrene is a danger hardly thought of, and is rarely seen save in association with the chronic dementia of general paralysis, or during or after an attack of very acute mania, or—and then generally as affecting the lungs—in melancholics who refuse their food. Feebleness of circulation and cold extremities were to be expected and were found, but they are to be placed in a totally different category to bullæ and bedsores, the evidences of great nervous degradation. What was the cause of the extreme rapidity of pulse? Why, in the absence of all visceral disease, should innutrition have advanced so speedily? On admission the patient was very weak, but by no means very emaciated, and after her arrival ample nourishment was administered—and every care was taken that warmth and attentive nursing could insure, and yet she steadily sank.

I much deplore the absence of a *post mortem*, and the morbid changes that were associated with the rapid decay must

* It should be also stated that there was no appearance of the trance-like, fixed, cataleptoid condition to be found in some cases of melancholia.

be more or less matters of conjecture. As Dr. Bristowe has stated bullæ frequently develop in pachymeningitis of the cord or in vertebral caries, but no symptom of any such definite condition could be observed. Beyond a general muscular feebleness, which was doubtless increased by a want of "power to will" any movement, no absolute paralysis was recognised. There was no spinal tenderness. Sensation to touch and pain was but slightly blunted. There was no marked muscular atrophy. At no time was there any complaint of headache, any rigors, vomiting, squinting, convulsions or spasms. It may be pointed out that the bullæ formed on parts quite free from pressure, and it seems not a little remarkable in the absence of all hemiplegic symptoms that the bed sore should have extended so exclusively to one side of the back. That the posterior cornua and the central regions of grey matter behind the central canal of the cord, believed by Dr. Bristowe to be the trophic centres for the skin, would have shown some lesion, seems probable, but the whole pathology of the case is far from clear to me, and it is indeed with a view of having my difficulties explained that I have brought it before the notice of this society, and I trust that the narration of its symptoms and of my perplexities has not run to a very tedious length.

Note on Hallucinations in General Paralysis in reference to Cerebral Localization. By W. JULIUS MICKLE, M.D.

The space available in this number of the Journal being insufficient for a paper I have prepared on hallucinations, and its publication being therefore deferred until the October number, it may be stated here that among the conclusions contained therein, are some to the effect that the views, at present accepted by many as to the exact localization of the cortical sensory centres of the cerebrum, are not supported by the morbid anatomy of general paralysis in the marked manner one would anticipate, supposing the localization in question to be so precise and exclusive as has been freely asserted.

OCCASIONAL NOTES OF THE QUARTER.

The "Lancet" on Asylums for the Insane, and Zoological Gardens.

It must no doubt be very difficult for the editor of a weekly medical paper to find subjects of interest for his leading articles. And when found, men to handle them competently must be still more difficult to secure. For, psychologically, the leading article writer and the successful physician or man of science are usually incompatible. We can understand the real physician after mastering a special subject, giving his professional brethren the benefit of his knowledge in the shape of a condensed and readable abstract. But we never could understand the state of mind of the medical politician, or the medical writer who has to fill up so many columns on any subject he may be called on to write about, from consultations with homœopaths to the latest medical bill. But so great is the sympathy usually felt for the unfortunate writers of these necessary lucubrations, that without complaint we skip them in reading our weekly papers, with an inward feeling of thankfulness that there are men who can take to uncongenial tasks. It is seldom that their common-places, if they do not instruct, offend any one. As a general rule the high and serious aims of our profession in all its various departments are recognised; the difficulties we have to encounter are taken into account, and a charitable construction is put on well-intentioned professional failures. Professional *esprit de corps* and comradeship commonly soften the acerbity of the medical critic. Some sense of responsibility generally underlies the fault-finding, and some smattering of knowledge of the subject treated of is usually to be found, even if the logic is halting, the style dull, and the information bald. Utter flippancy, total disregard of the feelings of professional brethren, and crass ignorance, are rare. And most fortunately of all, smartness has not hitherto been cultivated in medical journalism. The innate dignity of medicine in its daily fight with disease and death, has hitherto saved us from that.

In the "Lancet" of May 7th, there is a leading article about asylums for the insane and those medical men whose

lives are devoted to psychiatry and asylum government. It is divided into three sections. The idea pervading the first is that now-a-days there are vast numbers of "so-called lunatics" in asylums who are perfectly responsible, but who are "absolved from the duty of restraining their impulses by the fact of being under certificate." The second section, with the good taste that pervades the whole, has this for its key-note:—"The modern lunatic asylum and the Zoological Gardens of fashionable resorts are conducted nearly on the same principle, and with the same object." The third section, full of combined logic and paradox, is devoted to this thesis, that the modern asylum "is filled with tokens of peace and comfort, and even enjoyment," but "little, if anything, is done to restore the sufferer from mental disease to his right mind." Now, if we discovered in this article any trace of that knowledge which alone entitles any man to criticise the work of his professional brethren, or any spark of medical comradeship, not to speak of professional sympathy, we should endeavour seriously to argue the questions at issue, to state the present position of the psychiatric and asylum departments of medicine, and while admitting our weak points, endeavour to make some serious suggestions for their gradual amendment. But really the only thing that can be done in such a case is to answer a fool according to his folly. When a leading and responsible medical paper sees fit to entrust its leading article writing on lunacy to a man whose sole qualifications seem to be self-conceit, ignorance, prejudice, and want of sympathy, one cannot seriously argue with such a person. When all that has been done is ignored, when the difficulties of the subject are utterly passed by, when the old popular prejudices about the analogies between the insane and wild beasts are deliberately trotted out by a "medical brother" for the edification of medical brethren, and when all this is done in a mixture of flippancy and fine writing, one can find no common standing ground with such a writer.

If there are a number of persons who are "absolved from the duty of self-control" through having been placed "under certificate" by medical men, then they have been improperly placed under certificate, and it behoves the "Lancet" to stir up our profession to educate itself in mental disease, so that this may be no longer done. But all the world knows that nothing of the kind really occurs. The "Lancet" writer simply could not resist saying what

seemed to himself a smart thing that would look wise. That was all. Then the whole section about zoological gardens, "wild men and women," a "happy family," "mournful jingling of chains," "rags of the raging maniac," &c., is simply the ignorant effort of the medical penny-a-liner to spin out his task to the requisite length. Like all his kind he is too dull in heart and head to see how such a mode of talking of them degrades the insane, tortures their relatives, and calumniates our profession. If it is really the case that through the present management of asylums for the insane and the moral treatment of their inmates "quiet reigns" instead of turmoil and disorder, then the applied science of psychiatry has reached a very high point in our country. Human nature and mental disease have been studied to some purpose. So far as it goes, an eminently good result has been attained that is worthy of something better than sneering. If that result has been attained to any degree, then beyond all doubt and question the proposition in the third section of the article, that "little, if anything, is done to restore the sufferer from mental disease to his right mind," is emphatically disproved. Were the supposition not an inherently impossible one, we would ask the writer if he had ever had a case of acute melancholia in an exhausted subject to treat in a lodging, and if the "quiet" that had resulted in a few days from good skilled nursing, constant feeding, and outdoor exercise, with a little employment, and cheerful society, without physic and without further "treatment," was not in the direction of "restoring the sufferer to his right mind?" Now all these things are done in every good asylum in the case of any poor man or woman who is sent there, labouring under this disease. But the writer is clearly full of that most vulgar of all medical notions that "treatment" is physic, and nothing else. We could point out to the writer of this would-be offensive article asylums by the dozen where every patient on admission is carefully examined, mentally and bodily, his case as carefully taken as in any hospital, his treatment, moral and medical, as thoughtfully adapted to his individual wants, as our present knowledge enables us to do, where the new cases are kept by themselves, and not "huddled" together, so that they are not lost in a crowd, and where they are specially studied and reported on. The writer must know that the facilities for the study of mental disease by medical students are few, and the encouragement for them to do so, nil; and yet when did the

“Lancet” exert itself to remedy this most crying want in our system of medical education? A vigorous effort to make the study of the deranged mental functions of the brain a reality in our schools would do more for the insane and for asylums than all the leading articles that have ever yet appeared in the “Lancet,” or any other medical paper. But we trust when that effort is made, as made it must be soon, that persons will be selected to do so who have as qualifications for the work, enthusiasm, knowledge, fairness of mind, and a true sympathy for professional brethren, who have to do an extraordinary variety and amount of work, medical, legal, and administrative, and who, we affirm, do it, as a rule, in a most praiseworthy manner.

The “Open-door” System.

The abolition of locks and keys, and the adoption of what is known as the “open-door” system, appears to have gained so much ground in Scotch asylums, that English superintendents may well be excused for asking for further and more exact information with reference to its possibilities for introduction into English asylums. No one will dispute that, however necessary it may be to deprive insane persons of their full liberty of action, in the interest either of their own safety, or of that of society, they have an absolute right to demand that such privation shall be strictly limited by the actual necessities of the case, and that that degree of liberty which they can enjoy without serious risk shall be carefully secured to them.

It appears to me, therefore, that when such a system as that of open doors in asylums has assumed the practical form which the superintendents of some of the Scotch asylums claim for it, it becomes the obvious duty of all asylum superintendents to make careful enquiry into its possibilities of application to their own institutions and patients, with the view of at once seeking to render justice to those who are confined, and merge their own character of gaolers in their true functions as physicians. I venture, therefore, to ask from those who, by practical experience, are qualified to give it, for information upon the following points:—

1.—Has the open-door system been tried in mixed asylums or in asylums exclusively for patients of the private class—and, if so, with what results?

2.—Where it has been tried in any asylum, has it been in operation for sufficiently long periods to test its practicability throughout the whole asylum without limitation of class of case?

3.—Has it involved such an amount of additional expense as would render it practically incapable of general application?

4.—Has it been shown to be essential to its efficient operation that patients should be able and willing to employ themselves during the greater part of each day in physical labour?

5.—During its operation what precautions have been adopted to secure quiet patients from annoyance from those who are noisy; the suicidal and homicidal from opportunities of suicide or homicide; the destructive, dirty, indecent, erotic, and mischievous, from the gratification of their respective propensities; and those who are disposed to escape, from the dangers which might, and probably would, attend their escape?

6.—Is there presumably anything in the Scotch character and education which renders an experiment of this kind practically possible among them, and impossible in another, more excitable, race?

I ask these questions with a sincere desire to try the system, if it can be demonstrated that I may try it with a reasonable probability of safety and success, but I do not wish to do so unless there is such reasonable probability, which, with my present information and experience, I am bound to say, I do not anticipate.

A priori, it would seem that the quiet and well-conducted patients would have a somewhat hard time of it; that disorder and confusion would reign where there is now but small difficulty in preserving order and comfort; that risks would be run which no superintendent has a right to court; and broadly, that insanity, as an unfortunate practical fact, must virtually cease to exist before such an Utopia in asylum life and management can be attained, at all events for private patients.

These may be merely the prejudices of education and experience of the wrong kind, and if so, I shall be thankful to be set right, and led into a new course, and so, I believe, will all my brother superintendents.

I make these enquiries and statements with an earnest desire not to depreciate the labours and enterprise of those who have sought to strike out a new course, and appear to have achieved results which are deserving of congratulation and imitation.

I am only anxious to ascertain the truth, that I may, in my own limited sphere of work, either rest satisfied that I am

doing my best on the old lines, or help in the development of a new system which shall transform the whole treatment of insanity, and greatly ameliorate the condition of the insane.

FREDERICK NEEDHAM, M.D.

Lunacy Legislation.

Mr. Dillwyn succeeded, on the 25th of May, in obtaining a Second Reading for his Lunacy Law Amendment Bill. By the time this number of the Journal is published, further progress may have been made with the Bill, but it is not very likely that it will pass into an Act this year. Our objections to the Bill, as well as a frank admission of the value of certain clauses, are so fully stated in the Journal for October last, that we need not repeat them here. These objections have not been met by any revision of the Bill.

The Parliamentary Committee of the Association lost no time in considering the provisions of the Bill.

It was the opinion of the committee that the powers proposed to be given to the Visiting Justices of erecting asylums or of purchasing licensed houses, should be vested in the State; that the minimum price fixed for the purchase of licensed houses is manifestly inadequate; that the present mode of admission to asylums and licensed houses should remain in force, except that in every case, within seven clear days, the patient shall be visited and the order countersigned by a public officer appointed for that purpose; that in cases admitted on a certificate of emergency, two further certificates shall be obtained within seven days; that the clause of the Act at present in force with regard to the admission of boarders in Royal Hospitals, should be extended to asylums and licensed houses, and that notice of the death of a boarder should be sent as in the case of certified lunatics; that in Clause 13, providing for the liberation of persons confined in lunatic asylums, in place of "two registered medical persons," should be inserted *visitors*; and that the cost of the examination of a patient, as proposed in the Bill, should be borne by the person making the application; that the 15th Clause, giving power to Commissioners to remove patients from private to public asylums, should be omitted.

PART II.—REVIEWS.

Lehrbuch der Psychiatrie auf Klinischer Grundlage für Practische Ärzte und Studirende. Von Dr. R. v. Krafft-Ebing, Professor der Psychiatrie an der Universität Graz. 3 vols. Stuttgart, 1879-1880.

For many years, a German student of mental pathology had no other text-book than that of Griesinger. Although it was held as a standard book, and unsurpassable in many respects, the rapid advance of mental science, especially in Germany, seemed to necessitate a new exposition, and thus, nearly at the same time, different authors published excellent works on psychological medicine. Among them we may well signalise the valuable book of Prof. R. v. Krafft-Ebing. It is addressed to students and general practitioners, and is divided into three volumes, which appeared separately. The first volume contains the general mental pathology and therapeutics, the second the special, and the third clinical cases.

Now doubtless a good arrangement and practical division of a book is an important thing—above all in the opinion of a student. Yet we cannot help thinking that, in this respect, the author has carried it rather too far. Such a continuous division and sub-division will not be very welcome to a student, as we see, *e.g.*, in Chap. V. and VI. of vol. i., where we pass from A., B., C., and I., II., III., to 1, 2, 3, and *a, b, c*, up to *a, β, γ*! In the same way, we do not think this principal arrangement of the book a very happy one, and believe the disadvantages to be greater than the advantages. The author is frequently compelled to separate inseparable things, so that we must look over all the volumes if we want to get a general view of one form of mental disease. On the other hand, frequent repetitions cannot be avoided, and we have often to read twice what in another arrangement would not have deserved recapitulating. Moreover, we suppose that a single case in the text, illustrating at once the general description of a form of insanity, would be worth as much as ten separated from the context.

The first chapter of the first volume forms an introduction: Mental operations are nothing but symptoms, and the

brain is the organ of mind, as demonstrated by the usual proofs.

Chap. II.—Insanity is a disease of the brain. Only in a minority of cases, almost exclusively in the primary forms and first stages of mental disorder, we do not see any morbid post-mortem appearances. Yet in these functional diseases we may sometimes find anatomical lesions as well as in other nervous diseases (locomotor ataxy). There is no diffuse lesions of the cortex of the cerebrum without symptoms of mental disorder; there is no mental disease without well-marked nervous disturbances. We are not quite so sure as the author seems to be that the possibility of transformation in the same individual of one form of mental trouble into another, or into any neurosis, can be adduced as an exact proof of anatomical lesion in insanity.

Chap. III. gives an historical sketch of the development of psychological medicine and its further prospects, and chap. IV. the symptomatic analogies of insanity: the normal emotions, genius and eccentricity, dreaming, delirium in fever and intoxication, without, however, an attempt to explain the nature and relations of these different conditions.

In chaps. V. and VI., in nearly a hundred pages, the fundamental (elementary) disorders of cerebral functions in insanity are described; the mental and physical disturbances of feeling, intellect, will, speech, senses, motor and vaso-motor functions, &c. Whilst in the second chapter (three pages) the author might have made more observations on pathology, we think that by shortening these last chapters they would become all the clearer and all the more welcome to the student.

In the next chapter (VII.) the causes of insanity are considered. As a general rule, the predisposing causes are by far more important than the exciting; frequently no exciting cause is needed. On speaking of the most important predisposing cause, inheritance, we do not see clearly whether Krafft-Ebing admits hereditary predisposition in a patient whose parents die of cerebral hæmorrhage. His experience on this unsettled point would have been very valuable, as one physician simply admits a vascular disease, and therefore no tendency to transmission at all; whilst another fears strong predisposition due to organic brain disease. And when the author exposes the metamorphoses in the transmission of the different nervous and mental disturbances, he

might have mentioned also, that often among the relatives of the insane we do not only find mental and nervous troubles, but also tuberculosis and sterility.

As regards inheritance, Krafft-Ebing admits the distinction between "*erblishe anlage*"—merely latent disposition to mental disease—and "*erblishe Belastung*"—insane temperament—transmitted morbid influences affecting the whole mental and physical evolution of an individual. We shall observe the same distinction when he speaks of prognosis, and again when he establishes his classification. Among the exciting causes, the author believes that too much importance has formerly been attributed to bodily illness, such as heart and lung diseases (tuberculosis).

Chap. VIII. treats of the course, duration and termination of mental diseases, and chap. IX. of the mortality of the insane. Bodily disease is more frequent among the insane than the sane, and their rate of mortality is higher. Every alienist, we fear, might easily furnish examples enough in support of Krafft-Ebing's confession, that in the insane the diagnosis of inter-current disorders is often more difficult than that of the diseases of children, and that pneumonia, typhoid fever, &c., may only be detected in the post-mortem examination.

In chaps. X. and XI. the author gives practical rules as regards the prognosis and diagnosis of insanity in general, and of its simulation and concealment. The whole physical, nervous, and mental appearances must be examined, as well as the previous history and ætiology. A detailed form for case-taking is given.

The last chapter exhibits the author's views on treatment in general before the outbreak, during the illness, and during convalescence. He recommends early admission into an asylum in nearly all cases; he advocates bathing and hydrotherapeutics in general, and is too fond, many would think, of narcotics, chloral and bromide of potassium. He hopes that galvanic treatment may prove successful, if not now in the future, as well as other new remedies, *e.g.*, nitrite of amyl, of which he has given nearly a thousand drops to a case of primary curable dementia. We think Krafft-Ebing is quite right when he asserts that, with few exceptions, no patient requires to be fed artificially before six or eight days, if he be kept in bed. He might have mentioned here the relationship between refusal of food and the commencement of consumption, which he does not point

out anywhere. Above all, we have to mind that insanity cannot be treated on one and the same model, but that each patient has to be treated according to his own individuality.

In the first chapter of vol. ii. Krafft-Ebing expresses his views on the classification of the different forms of insanity. They deserve a detailed account.

In the first place the author distinguishes the two principal groups:—

I.—Mental disease after the development of the brain and its functions.

II.—Mental disease due to arrest of development, occurring in an individual in whom the brain and its functions have never been fully developed.

This second group comprises the different degrees of idiocy and imbecility with the variety cretinism, the latter manifesting degeneracy as well of other organs as of the brain. The first group is divided into three well-marked classes:—

1. Insanity affecting a well-developed brain with normal functions—*psycho-neuroses*.

2. Insanity affecting a brain with abnormal functions, due to inherited predisposition or another morbid constitution—*forms of mental degenerations*.

3.—Mental disorder being simply the most striking symptom of *coarse cerebral disease*. Here we find—

1. General Paralysis.
2. Syphilis of the Brain.
3. Chronic Alcoholism.
4. Senile Dementia.
5. Acute Delirium.

Krafft-Ebing does not mean to say that in every case the so-called *psycho-neuroses* and mental degenerations are strictly opposed, and that there is no transition between them. However, as a rule, he thinks we may observe the following differences in ætiology and clinical course:—

PSYCHO-NEUROSES.

1. "Parasitic" disease, accidentally affecting an individual whose cerebral functions up to the present time were normal, and whose insanity was not to be foreseen.
2. Derangement due to temporary indisposition—severe bodily illness—and a combination of serious exciting causes. Hereditary predis-

MENTAL DEGENERATIONS.

1. Disease based upon the whole nervous and mental constitution of the patient, abnormal from his early life, in whom the nervous centres presented an unstable equilibrium, so that disturbance was to be foreseen.
2. Slight exciting causes may be sufficient, even processes of physiological life (puberty, menstruation, parturition, climacteric period). The in-

PSYCHO-NEUROSES.

position may be present, but latent.
(Brain functions normal until now.)

3. Tendency to recovery. Relapses rare.
4. Little tendency to transmission on descendants, and then in a mild form of psycho-neurosis.
5. Typical development and course, form showing a certain well-defined character, and in certain limits of time ending by recovery or dementia.
6. No tendency to periodical return of attacks or series of symptoms.
7. The delusions arise late; they are generally in conformity with the predominant condition of mind as in a logical way, satisfactory to himself, the patient attempts to explain his morbid feelings and emotions.
8. The fixed ideas, no doubt, are untrue; yet in a logical way built upon false premises in conformity to physiological life.
9. The mental disease is a well-defined contrast to health, and its onset is well-marked.
10. The actions of the patients are generally excited by conscious motives.

MENTAL DEGENERATION.

sanity is principally due to a morbid constitution, inherited or brought on by injuries generally affecting the brain before its complete evolution. The mental derangement is frequently the culmination of a succession of increasing nervous disorders (spinal irritation, hysteria, &c.)

3. Little tendency to recovery, generally only temporary re-establishment of the former state. Great tendency to relapse, and development of higher forms.
4. Pronounced tendency to transmission on descendants, and in a higher, progressive form—progressive hereditary degeneration.
5. All forms of insanity may occur, but generally they have a profoundly organic appearance. Progress not to be foretold; symptoms varying frequently and abruptly, without apparent cause; never exhibiting a pure character, but a mixture of different types; general progress slow, often reaching death without further development, and never, or late, passing into complete dementia.
6. Great tendency to periodicity; periodical insanity is a symptom of degeneracy.
7. The delusions are "primordial," direct, spontaneous products of a diseased brain; they appear in an early stage, abruptly, without reasons assigned, independently of the general conditions of mind. They surprise the patient himself, and are adopted and explained only with difficulty. Delusions may be limited, or even absent, if there exist involuntary thoughts or original weak-mindedness.
8. The fixed ideas are often strange, fabulous and monstrous, so that the patient is scarcely able to explain them in a logical way.
9. The transition of the insane temperament into insanity proper is often invisible. Even in fully developed insanity there is here a curious mixture of incoherence and lucidity with consciousness of the illness.
10. The actions are frequently impulsive.

PSYCHO-NEUROSES.

MENTAL DEGENERATION.

11. Gradual evolution and involution of the disease.

11. Abrupt outbreak, abrupt termination (especially in periodical insanity and in symptomatic, hysterical and epileptic forms).

Krafft-Ebing sub-divides these first two classes in a different way. Among the psycho-neuroses he distinguishes primary forms, generally curable and secondary, following the former, exhibiting a persistent defect of mental power and incurable secundäre psychische Schwächezustände.

The primary forms of psycho-neuroses are—

1. *Melancholia* in two degrees: *Melancholia passiva* and *Melancholia cum stupore*.

2. *Mania* in the lighter form of *maniacal exaltation*, and the graver of “*Tobsucht*,” raving madness.

3. *Stupidity*, *primary curable dementia*.

In melancholia and mania there exist, besides, transitory forms of very short duration, *raptus melancholicus* and *mania transitoria*.

The secondary forms may be separated into “secundäre Verrücktheit,” and “Blödsinn” whether apathetic or excited. To these terms, closely related, of secundäre Verrücktheit and Blödsinn, the English incipient and confirmed dementia would best correspond. They are opposed to “primäre Verrücktheit,” delusional insanity or monomania.

The class of mental degenerations contains the following types, each with different varieties:

1. Constitutional affective insanity—*folie raisonnée*.

2. Moral insanity.

3. Primäre Verrücktheit—monomania.

4. Mental derangements as a metamorphosis of a constitutional neurosis: of epilepsy, hysteria, and hypochondriasis.

5. Periodical insanity.

Chap. II. describes the various psycho-neuroses, the primary and secondary forms; and chap. III. the different types of mental degenerations—melancholic or maniacal *folie raisonnée*, congenital or acquired moral insanity, primäre Verrücktheit, in which Krafft-Ebing comprises the insanity with delusions of persecution or of grandeur, and the mental disorder consisting in “*Zwangsvorstellungen*,” involuntary, impulsive thoughts. As regards the often misunderstood term of primäre Verrücktheit, we may reproduce the author’s introductory remarks:—

“According to the opinions and theories of the old

alienists in Germany, the insanity with fixed ideas—Wahnsinn—followed primary conditions of melancholy or mania. If this dogma could not be proved, they were satisfied by assuming that the previous history of the patient was not fully known, and confidently admitted a preceding melancholia which had been overlooked or remained unknown. They believed that the delusions of the patients suffering from Wahnsinn and secundäre Verrücktheit—with weakened emotions—had been produced in the affective stage of melancholy or mania by morbid, *i.e.*, erroneous attempts to explain the morbid processes of consciousness.”

When the emotive or affective period of the disease had been passed, these delusions, essentially formed by a psychological process of reflection, and originally caused and nourished by vivid emotions, appeared to remain as a precipitate, a residue thereof, founding an entirely new personality, or leading to a complete change of relations to the outer world. This period of Wahnsinn and secundäre Verrücktheit formed only one stage before the terminal transition of the process into Blödsinn.

The delusions of these patients partly manifested depression (ideas of persecution); partly exaltation (ideas of grandeur). In substance they seemed to be due to morbid alterations of self-feeling; the delusions of persecution were ascribed to the depression of self-feeling in a preceding melancholy, and the delusions of grandeur to the exaltation of a previous mania. Frequently the exalted ideas were considered to be a mark of conscious reaction against the delusions of persecution, presenting to the patient a kind of compensation.

Whilst the French alienists never accepted such a one-sided and dogmatic theory, and never gave up the partially primary origin of delusional insanity—monomanie, Esquirol; folie sensorielle, Lélut, Voisin—the German alienists up to recent days adhered to a narrow psychological way of considering as secondary the so-called depressed and exalted Verrücktheit. Moreover, the dubious term of *partielle Verrücktheit* was introduced for a number of cases in which, refractory to theory, the patient did not become weak-minded, and, on the contrary, thought and acted rightly as far as his fixed ideas were not concerned. Ellinger, Kahlbaum, Snell, Griesinger, were the first to admit a primary delusional insanity, Ellinger using the term of “primäre Verrücktheit” without more details; Kahlbaum, in 1863,

introducing the name of "vecordia;" Snell, in 1865, accepting that of "monomania;" and Griesinger, in 1867, describing the delusions as "primordial," spontaneous, not founded on any emotional basis. Another term may also be unknown to English readers—that of originäre Verrücktheit.

There exist two varieties of pure delusional insanity, the first—delusional insanity proper—affecting an individual after a course of life no doubt abnormal, though not exactly morbid; the second—originäre Verrücktheit—in which somewhat analogous to moral and intellectual idiocy, an insane temperament slowly progresses from its origin into insanity, often without visible exciting cause, where in the child mental disease is developing itself just as health in the sane.

In opposition to some authors, who believe in an acute form of delusional insanity with rapid recovery to be very frequent, and often hardly distinguishable from melancholia, Krafft-Ebing says very little of such a form, and describes the general progress as slow, nearly stable, and the termination as unfavourable, although he gives several examples of recovery.

The rest of chap. III. is devoted to the different forms of epileptic, hysterical and hypochondriacal, as well as periodical insanity. We find no mention of male hysteria; evidently the author does not admit hysteria and hysterical insanity in the male sex. In "idiopathic" periodical disturbances the author has often prevented an outbreak by the use of morphia and by the use of bromide of potassium in "symptomatic" periodical insanity due to menstrual troubles. When in the next chapter, on cerebral diseases with predominantly mental symptoms, he speaks of the treatment of general paralysis, L. Meyer's derivative treatment by means of the ointment of tartarized antimony might have been mentioned. Among the causes also syphilis deserved special notice. Afterwards, the author no doubt admits that chronic alcoholism, as well as the specifically syphilitic mental disease may end in general paralysis.

With many German writers, Krafft-Ebing considers delirium tremens to be a mere symptom of chronic alcoholism, and ranges its grave form—Magnan's delirium tremens febrile—with acute delirium. We wish we could say with him that there is no case of acute delirium in which we are not able to find in the brain morbid changes even by the naked eye.

Vol. ii. is brought to an end by chap. V.: congenital insanity, idiocy and cretinism.

As regards vol. iii., little needs to be said. It is a case-book, containing 159 observations illustrating the various forms. Each group is preceded by a short recapitulation of its characteristics in reference to vol. ii. But every reader will regret that the author did not attempt to give standard descriptions, and has so often restricted himself to simple sketches, as he admits himself, in the introduction.

Often when we are perusing a German book, it strikes us how difficult it must be to write a good one, as too often it is so difficult to read it. No doubt for scientific purposes the German language is not very favourable; there exists such a confusion of terms, materialistic and not materialistic, which often prevents clearness and consistency of thought and expression. Besides, the Germans have a peculiar way of explaining everything by a theory, of circumscribing every observation by a profound speculation on anatomical and physiological conditions, on anæmia and hyperæmia, and molecular constitution, &c., even if they do not know very much about it. Although in that respect Krafft-Ebing has been comparatively moderate, and is of course free from the latter charge, we cannot help thinking that he might have spared his readers some elocution of this kind. Take, *e.g.*, delusional insanity: "The negative post-mortem appearances in delusional insanity call for the supposition that the disease affects the inmost molecular processes of the "Denkzellen"—thinking cells—of which the characterological (!) peculiarities before the illness and the primordial morbid ideas during the illness, appear to be the clinical expression."

Does such a sentence—and there are more like it in this book—really mean very much? And does it mean more in monomania than in any other mental disease? And yet another remark. In general, Krafft-Ebing's book is better written, and much more intelligible, than other German books on mental pathology; the author, however, seems rather too fond of provincialisms and foreign words which nobody knows, and might not even find in a dictionary, although the Germans have got good words and constructions of their own. Too frequently, also, he heaps a crowd of phrases into one, so that we sometimes ardently desire that the author would use his dissecting knife and cut in two these long sentences, for their own sakes as well

as ours, for each part would enjoy an independent existence none the less. We could also wish the author would not use a certain class of expressions, which unfortunately seem to have been adopted as stereotypes in too many German books on mental science, such as "*hypertrophy of character*" in monomania; *caput mortuum* in terminal stages, e.g., of general paralysis; *rest of a cemetery* for the condition of mind in confirmed dementia; *proteuslike mental style of architecture in the convolutions of the cortex of the brain*, &c.

But of course these are superficial blotches, of little account when the total value of such a work as this is considered. Since Griesinger, it is one of the most valuable works which the Germans have given us as a comprehensive treatise on mental disorders. Krafft-Ebing's other work on the Criminal Responsibility of the Insane is a most able work, and avoids the mistake of separating the cases from the context. His rich experience as an expert makes his observations of the greatest value, and the amount of labour bestowed upon these and other contributions to Medical Psychology evince an indefatigable worker and writer truly admirable. Throughout Krafft-Ebing's works there is, in spite of the few criticisms we have ventured to make, a philosophical breadth which is too seldom found.

The Kindergarten Principle. By MARY LYSCHINSKA. London: Isbister, 1880.

If the mental functions of children develop in a determinate order, if the unfolding powers of the brain must pass through definite stages in order to reach maturity, it seems clear that any attempt to interfere with this order and with the normal succession of stages must involve great danger to the mental health of those subjected to such interference. Comenius,* Pestalozzi, Froebel, and other reformers have done good service to the cause of education by pointing out that educational methods must be based on "the method of nature,"

* His work, "*Orbis Sensualium Pictus*," appeared in 1657, in which it is observed "The first education should be of the perceptions, then of the memory, then of the understanding, then of the judgment. The schools are wrong in first teaching languages, and then proceeding to things. Things and words should be studied together, but things especially—the object both of the understanding and of language." See an interesting article by Prof. Calkins in an American magazine, "Education," edited by T. W. Bicknell.

must follow the spontaneous unfolding of the mental faculties. To those who believe that the faculties of modern civilised mankind have been gradually acquired by the experience of past generations, this principle comes home with greatly increased force, because they see not only that the mind develops in a particular way, but also how this comes to pass as an instance of the law of heredity; they see that the history of individual development must repeat in brief the history of the development of the race: in this way also they obtain a valuable datum for practical guidance in educational methods, for the order in which knowledge has been acquired by the race is more or less known to us. In any case, Psychology, by discovering the true order of development of the mental faculties, may do good service to educational reform, and may likewise do much to prevent that risk of mental injury which the strain of present educational methods seems likely to determine; for it cannot be doubted that any method which disregards the normal mode of development of the cerebral powers, the mode pre-ordained by inheritance, must not only risk failure in the achievement of sound education, but must be liable to cause so serious a distortion of the mental faculties as to constitute a blunting of the intelligence, and perhaps even actual insanity. To the medical psychologist, therefore, the enunciation of sound principles of education is a matter of the deepest interest. And while it would not do to affirm that the modern Kindergarten is a perfect embodiment of these sound principles, we do not hesitate to say that a young child would thrive far better in a good Kindergarten under the genial guidance of Mary Lyschinska as *Kindergärtnerin*, than crammed, and cramped, and driven under the ordinary method. A very fair idea of the new system may be obtained by a perusal of Miss Lyschinska's book, "The Kindergarten Principle." There can be no doubt that the method there illustrated would tend on the whole, as it ought to do, really to develop faculty—the power of action—rather than cram with knowledge; and does on the whole, as it ought to do, place the concrete before the abstract, the simple before the complex. The growing experience of teachers and the progress of Mental Science will, doubtless, considerably modify the details of the process, but it cannot be denied that a *well-conducted* Kindergarten has reached a very tolerable approximation to the ideal method. But in that italicised qualification lies the very keystone of the system. Do not let it be

supposed that a perusal of Miss Lyschinska's book, or any other book, will enable a well-meaning mother or elder sister to become an efficient substitute for a trained teacher. The attempt of amateurs to practise Kindergarten teaching is only less disastrous than the attempt of quacks to practice Medicine: we do not say that to become a successful Kindergärtnerin requires *as much* training as to become a successful physician; this would be an exaggeration, but the difference is not so very great. Without denying that there is truth in the notion that the mother is the proper trainer of infants, we believe there is much tendency to exaggerate its importance: the superintendence of the unfolding brain is a duty which can only be satisfactorily performed by those who are specially endowed by nature and specially trained by art. It is a duty which we believe it is dangerous to leave even to the ordinarily competent mother, but it is frightful to see it left to an ignorant or frivolous mamma or nursemaid. Happily the means of sound training are now provided by the Froebel Society at their Training College in Tavistock Place, and a capital opening is afforded to young women of qualifying themselves for a most useful profession. It is really dreadful to think of the way in which the profession of teaching is too often regarded. It seems to be thought that the natural resource for girls of a certain class, becoming poorer than they expected to be, is to become governesses, regardless of their capacity for the duties of teaching: thus women, who might have succeeded very well as housemaids or shop-girls, are often entrusted with one of the most difficult and responsible of all duties, the training of the minds of children. This extraordinary system the Froebel Society is helping to abolish, and we trust that no young women—mamas or otherwise—will consider themselves competent to bring up their own or other peoples' children on the Kindergarten method without having undergone such a training as that now provided by this Society.

Nor is training the one thing needful. Miss Lyschinska's book impresses one very strongly with the opinion that the Kindergärtnerin must be a girl who has a thoroughly sympathetic nature, and also a girl of very decided intelligence. For of all things it is essential that the method of teaching should not crystallise into a rigid routine; the teacher must be ever ready to modify her methods as occasion arises, and to adapt them to the varying natures of the children entrusted to her care; she must, in fact, have a readiness of

resource which only intelligence, and not *mere training*, can give. It is hence most important that intelligent girls of the best educated classes should afford a plentiful supply of students to the Training College, which, as we said, the Froebel Society has started in Tavistock Place. Family physicians might make good use of their influential position by suggesting such an occupation to some of the many idle young women who now too often waste their energies in the most trivial pursuits: by so doing they would not only greatly benefit future generations of children, but save many young women from *ennui*, hysteria, or worse. The final decision as to the success of the Kindergarten method can ultimately be determined by actual experience alone, and of course the experiment can only be conducted fairly, if the persons appointed to carry out the trial are really such as are competent to give effect to the principles on which the method is based.

Of all the practical tests of success in the adaptation of educational method to mental evolution, perhaps the most valuable is the effect produced on the child's pleasurable feelings. The temporary failure of the mental nature to adapt itself to new or complex circumstances cannot conceal from us the general rule that the healthy exercise of function is pleasurable, while pain indicates something wrong in the way in which function is exercised. Hence preference must be given to an educational method in which the children delight, rather than to one which disgusts the ordinary child and wearies even the most intelligent: we may be sure that the former method is calling forth the functional activity of the brain in the right direction, while the latter is distorting the normal growth, and throwing the cerebral functions out of harmonious relation with one other. Now there is no doubt that children enjoy the training of a well-managed Kindergarten; while the ordinary schoolroom, school books, and too often the school teacher, are associated in the child's mind with the most disagreeable impressions of its existence. It is horrid to be stuffed with dry facts, but it is delightful to exercise the developing faculties of the mind. Alike to the infant, the lad, and the adult, the gaining of new experience of the world appropriate to each conveys the most pleasurable impressions, and impressions that are associated with pleasurable activity are sure to be vivid and persistent.

Perhaps the contrast of the new and the old systems is

best shown in the teaching of geometry. Instead of learning by rote a number of abstract rules and then proceeding to learn propositions out of a book—frequently, as the writer can testify from experience, without any real understanding of them—the Kindergarten child begins his study of geometry by a practical experience of the actual space properties of bodies; *things*, not *words*, are made his staple intellectual food; thus, he folds paper into various shapes, or constructs figures with cubes or triangles of wood; in this way he begins with the simplest concrete cases, and is gradually led on by easy stages and by giving scope to his constructive faculties to gain a more and more complete comprehension of the elementary facts of geometry, only reaching the more abstract conceptions and complex reasonings after a thorough mastery of the simple groundwork: he grasps the *reality* before he is expected to realise the *symbol*. Another example of the erroneous old method has been pointed out in the case of the Latin Primer used in the Public Schools, in which the unlucky urchin is introduced to the Latin tongue by a number of arbitrary rules; abstract symbols are thrust upon him; he is expected to learn rather than to understand: we are not surprised that that excellent woman, Mrs. William Grey, has expressed her surprise at this product of the combined wisdom of Head Masters; no wonder that Mr. Spencer speaks of “that intensely stupid custom, the teaching of grammar to children;” would that Mr. Spencer could impress upon those in authority the full meaning of the dictum which he has quoted from Montaigne, “*Sçavoir par cœur n’est pas sçavoir!*”

In concluding, we may express the hope that Mary Lyschinska will succeed in introducing more rational methods into the Infant Schools of the London Board, under which she holds an important post; and we may once more urge upon medical men, especially such as belong to the Medico-Psychological Association, the importance of making the public understand the need of securing rational education for children, and the admirable opening which Kindergarten teaching affords to intelligent girls who are willing to go through the needful training.

W. S. T.

Experimental Researches on the Regional Temperature of the Head, under Conditions of Rest, Intellectual Activity and Emotion. By J. S. LOMBARD, M.D., formerly Assistant Professor of Physiology in Harvard University, U.S. London: A. K. Lewis, 1879.

Experimental Researches on the Temperature of the Head. By J. S. LOMBARD, M.D. London: A. K. Lewis, 1881.

The researches undertaken by Dr. Lombard are obviously of great interest and importance to the medical psychologist.

Dr. Lombard finds that two conditions are essential to the production of heat sufficient to be shown on the head; 1st, the work must be continuous for some minutes; 2nd, the mind must be applied with considerable intensity.

It is often impossible to detect any change of temperature in the heads of those who work *leisurely*. The addition of certain figures would represent a certain expenditure of force, whether slowly or rapidly performed, the total production of heat being the same in both cases. In the slow addition, however, the production of heat per unit of time will be too small for detection.

The author thus describes two modes of experimenting, considered without special reference to the comparative effect of different regions or sides of the head: 1, to affix one pile to the head, and another with its current opposed to that of the first, to some other part of the body—the thigh, for example—thus obtaining the difference of temperature between the two parts. 2, to apply one pile to the head, as before, and to use an opposing current of constant strength sufficient to keep the spot of light of the galvanometer on the scale when the pile upon the head is in action. Dr. Lombard finds that the temperature of the thigh often falls during prolonged mental exertion, sometimes slightly, at other times very markedly. Contraction of blood-vessels under vaso-motor influence is set down as one cause of the fall of temperature, as occurs according to Mosso during mental exertion, in the forearm. (“Archives de Physiologie,” 2me série, t. iii., p. 177.)

In regard to different regions of the head, it appears that intellectual work causes a rise of temperature in all anterior, middle, and posterior regions of the head, that the rapidity and degree of this rise are different in the different regions; that the kind of work which affects one region in the

greatest or least degree, affects similarly the other regions, and that, in the particular spaces examined, the order of the regions with regard to both degree and rapidity of rise of temperature is first, the Anterior, secondly, the Middle, and thirdly, the Posterior region. Again, in the particular individual experimented upon, the greatest effect was produced by composition; the next greatest effect by rapid arithmetical computations; and the least effect by making of notes. It must be added that exceptions to these general conclusions occur; thus, the anterior region does not invariably show the highest rise of temperature.

Other experiments show that, in the majority of cases, in all three regions, the greater rise of temperature, in intellectual work, occurs on the left side; the percentage being, *left* side, 66·24; *right* side, 19·23; equal 14·42.

The emotions are reduced to experimental control with most difficulty. It is fortunate that some persons can arouse, almost voluntarily, certain emotions by the reading or recitation of appropriate pieces. Mere mechanical reading fails to produce any effect. Recitation to oneself causes a higher temperature than recitation aloud.

Emotion shows its influence on the temperature of the head more quickly and more decidedly than that of intellectual work. Like intellectual work it causes a rise of temperature in all regions of the head; there is less difference in the different regions, but the order of the regions is the same. The rise of temperature is higher, in emotional activity, on the left than the right side, being 60·41 p.c., while 21·52 are in favour of the right side, and 18·05 in favour of equality of the two sides.

Dr. Lombard believes that in both intellectual and emotional activity the higher degrees of rise of temperature on the head are in part due to vascular disturbance.

How far do the temperatures of points of the outer surface represent those of cerebral tissue lying directly beneath them? The reply the author gives is as follows:—There is no certainty that the relative temperatures of small subdivisions of the outer surface represent exactly the relative temperatures of the underlying tracts of brain-surface, but it is highly probable that in the case of *larger* areas, a definite relation exists between the two classes of values; hence the inference, that taking the rise of temperature as the best available measure of functional activity, the relative elevations of temperature of areas of a certain size of the outer

surface, during mental exercise, represent, with considerable correctness, the relative degrees of functional activity of the corresponding underlying portions of brain-surface (p. 209).

The results as regards the temperature of the two sides of the head differ from Broca, Gray, Maragliano and Seppilli, who held that the left side has *always* the highest temperature. Dr. Lombard, assisted by Dr. Haynes, subsequently made a number of observations, recorded in the second volume at the head of this review. Dr. Amidon, of New York, having published a number of experiments, entitled "The Effect of Willed Muscular Movements on the Temperature of the Head," and having attempted to show not only that these movements cause elevations of temperature at the surface of the head, sufficiently marked to be capable of detection with thermometers, but also that the contractions of different muscles affect the temperatures of different well-defined areas of the integument of the head—each muscle, according to him having a special thermal centre in the cortex, the temperature of which is increased when the muscle acts, in a degree sufficient to produce a change of temperature in a circumscribed area, appreciable by the thermometer—he mapped out twenty-five districts on the head corresponding to as many muscles.

Our author's researches have not confirmed his conclusions. They indicate that the changes of temperature are most probably seated in tissues external to the brain, and have no immediate connection with cerebral action. The causes were found to be generally obscure, only some of them being accounted for by changes of the temperature of the air and alterations of the general circulation. Of 81 results, only 3 could be construed as affording evidence of a rise of temperature due to muscular contraction *per se*; indeed, muscular movements seemed rather to cause a fall of temperature, such cases being five times as numerous as those in which a rise of temperature prevails. MM. Bert and Franck have also failed to confirm the conclusions of Dr. Amidon.

It is granted, however, that in a certain number of cases, the muscular movements in some way cause a disturbance of the head-temperature, but in what way is not yet clear.

With regard to the relation between the temperature of the air and that of the head, elaborate observations were subsequently made by Dr. Lombard, and while there appears to be a general relation between them, the fall in that of the head is slight compared with that occurring in the air, the

maximum of the former being $1\cdot6^{\circ}$ C., while the latter at its greatest, is $11\cdot9^{\circ}$ C.

We have for the most part given the conclusions arrived at in these works in the words of the author, interspersed throughout the papers. It would have been a convenience to the reader had there been a brief *résumé* at the close. The works themselves must be read to be understood. The publisher deserves credit for having issued them with scant probability of their having the circulation which they merit, and which would make them remunerative. The labour of the author is meritorious and must have been great.

Leçons Orales sur les Phrénopathies, &c. Par J. GUISLAIN.
2me Edit, publiée par les soins du Dr. Ingels. Gand:
1880.

We welcome a new edition of this excellent work, and are glad that the lot of editing it has fallen into such capable hands as Dr. Ingels'. Our only occasion for regret is that he has not indicated the paragraphs which are additions by himself to the original work, "necessitated by the progress of Science." It is true that if they are supposed to differ from the views held by Guislain, they are given in a note. No doubt Dr. Ingels has most conscientiously done this work, but the incorporation of new matter, without indications, destroys the historical unity of the book. This remark does not apply to the additions which consist of materials found among the author's papers after his death. Belgium has just reason to be proud of Guislain. He was the greatest clinical observer and teacher of his day. He began at the right end—observation. His graphic descriptions are unsurpassed. He regarded the study of mental disorders as the most arduous of all. He spent ten years in examining patients during life and after death; ten others he spent in reflecting upon what he had observed. It was only during the latter, he tells us, that he learnt how to cure. But Guislain was not only a physician, observing and treating the insane. He was a reformer. His influence must have been great in inaugurating a change in the condition of the insane in Belgium. What that condition was may be gathered from his statement that they were the object of an infamous traffic; that they were immured and forgotten in dark prisons, that they were looked upon as animals, to be pro-

vided for like pigs and horses, and that the public administration was struck with impotence. He infused into his auditory a passionate desire to aid in the work of reforming abuses. "I desire," he said, "that my course may be for you the motive power of an apostle's. Do as I have done, attack abuses wherever they present themselves, but attack them from the vantage-ground of reason. There is your humanitarian mission!" We are not in a position to state whether the condition of the insane in Belgium is what Guislain would have wished it to be, but that his mission was to a large extent successful, we have no doubt. The School of Psychology in Belgium at the present time is a worthy fruit of his labours, and is ably represented by an association and a journal.

Etudes Cliniques sur l'hystéro-épileptiques ou Grande Hystérie.
Par le Dr. PAUL RICHER. Paris: 1881.

This work meets a desire strongly felt by the medical profession since the morbid phenomena treated of have attracted so much attention and interest, and, in some quarters, hyper-scepticism, namely, to have them presented in a scientific and consecutive form. These conditions have been fulfilled in the present work, which has been lucidly written by M. Paul Richer. A preface by M. Charcot adds to the value of the publication. We have not space for a lengthened review in the present number, but intend to give our readers, in a future issue, the main results arrived at by the author, who modestly ascribes all the merit of the book to his distinguished master, to whom he appropriately dedicates it. The illustrations are profuse and extremely graphic.

The Alienist and Neurologist. St. Louis. Misso., U. S. A.
Edited by Dr. C. H. HUGHES.

This quarterly journal, devoted to the subjects indicated by its title, is highly creditable to its editor, and we have pleasure in commending it to the readers of our Journal, and others interested in the psychological department of medicine. Dr. Hughes was at one time Medical Superintendent of the Missouri State Lunatic Asylum, and is likely, judging from the numbers before us, to combine practical experience with editorial ability.

PART III.—PSYCHOLOGICAL RETROSPECT.

1. *English Retrospect.**Asylum Reports for 1879.*

Dorset.—It would be well if some penalty were attached to culpable negligence in filling up the papers necessary for the admission of a pauper lunatic. In many places besides Dorset the complaint by Dr. Symes might be made. He says, "The forms of admission are frequently so carelessly filled up as positively to render them illegal; and it is a rare thing, except from two or three Unions, to receive a patient without the form having to be sent back for correction. All this adds much, and unnecessarily, to our trouble; whereas, attention to the notes plainly printed in the margin, would entirely prevent this complaint. A great want of energy is also shown by some Relieving Officers in not bringing their patients at or before the usual hour appointed for their reception."

Dundee.—In referring to an accident to a female pauper patient, who in a sudden paroxysm of excitement pushed her arm through a pane of glass, severely lacerating her forearm and nearly severing the ulnar artery, Dr. Rorie takes the opportunity of pointing out the imperative necessity of efficient assistance being at all times and immediately available. This can only be done by the appointment of an assistant medical officer. When it is stated that the average number resident in 1879 was 254, and that the admissions were 115, it will be at once evident that there is urgent necessity for an addition to the medical staff.

The system of collecting the epileptic, paralytic, and infirm, and placing them under the care of night attendants continues to give very satisfactory results. On these patients retiring to rest, the night attendants enter on their duties in the adjoining day-room; the doors of the dormitories communicating with this room are kept always open, and the wants and necessities of the patients can thus be immediately and readily attended to. In this manner many are enabled to pass the night in quietness, safety, and under constant supervision, who otherwise would have required separate bedrooms, and from the necessary uncertainty of their condition during the night, unless when specially visited, would have been a source of constant anxiety.

Fife and Kinross.—Dr. Brown attributes the marked increase of admissions to the following causes:—1. An increase of the population; 2. The capitation grant of 4s. per patient from the Imperial Exchequer; 3. Milder forms of insanity are now sent to the asylum, which formerly were treated at home or elsewhere, but not in the asylum; 4. Asylums are being gradually looked upon, not as prisons

for the detention of patients, but as hospitals for the cure and treatment of the insane, and there is not so much aversion now felt by the public to place their relatives in asylums, as was once the case ; 5. The refusal to admit private patients has necessitated their being placed on the parochial roll.

In 10·1 per cent. of the admissions intemperance was considered to be the cause of the illness.

Glamorgan.—Increased accommodation is urgently required. Although many patients are boarded in other asylums, it has been found necessary to restrict the admissions. The water supply is evidently defective. An outbreak of typhoid fever caused enquiry to be made, when it was found that the well contained sewage matter. For years large quantities of sewage had been poured on the garden, within two or three hundred yards of the well.

Glasgow Royal Asylum.—It is quite evident that this asylum is doing good work, especially in providing accommodation for persons of limited means. This function is referred to at considerable length by one of the Scotch Commissioners, and as his remarks are important on this really national question, they are reproduced in order that English superintendents may see how a great public want is, partly at least, met.

“ It would be a cause of much regret, however, if any delay in providing district accommodation were allowed to interfere with the ready admission of private patients, paying low rates of board. In a large city like Glasgow the number of such patients must be large, and it is most desirable that every facility should be given to the sending of them to an accessible and well-conducted public institution, where they obtain advantages which they cannot obtain elsewhere for the same low payment.

“ There is more difficulty in providing suitably for insane persons of this class than for those of any other, and nothing too strong can be said in commendation of the action of the Directors and Superintendent in their efforts to meet this difficulty.

“ Persons paying rates of board very little above those paid for paupers, are admitted with increasing readiness into the asylum, where they receive excellent accommodation and medical treatment.

“ The beneficence of what is thus done has not yet been realised by the public, but it is desirable that it should be more widely known, so that the charitable, by gifts and bequests, may put the Directors in a position to extend their action, and do even more than they have done, by assisting those who can scarcely pay the pauper rate of board, but who may, nevertheless, be quite above the class of ordinary paupers. Such persons are too often kept at home till their mental disorder is confirmed, from an unwillingness on the part of their friends that they should be enrolled as paupers, and an inability to pay such rates as would secure for them in an asylum the treatment they need.

“ It would be a great gain if the Directors had funds at their disposal

to enable them, in these circumstances, to give the necessary assistance, and thus secure the early treatment and recovery of a considerable number of sufferers belonging to the respectable part of the lower middle class of society.

"The force of these remarks may not be fully seen by those who fail to remember that every pauper lunatic, needing treatment in an asylum, and also every private lunatic, in a like condition, for whom a rate decidedly higher than the pauper rate cannot be paid, should, beyond question, be provided for in a public, and not in a private asylum."

As to the causation of insanity, Dr. Yellowlees points out that his statistics "tend to confirm the now familiar truth that the growth of insanity, like that of crime, is favoured by prosperity and the dissipation which it encourages, while it is checked by adversity and the sobriety which it imposes. They also tend to prove, if proof were needed, that insanity is due to physical far more than to moral causes. All the suffering and sorrow of the past two years in this district have done little to increase the number of the insane, and it is remarkable that only two cases have been received into this asylum, in which the insanity was directly attributable to the failure of the City Bank. In truth it is rarely that a well-balanced mind is driven into insanity by sorrow or misfortune, and in the majority of cases, when this occurs, some inherited nervous instability is present, or some other physical cause is co-operating in the production of the disease."

In acknowledging the praiseworthy conduct of the attendants, amid duties that are often very trying and disagreeable, Dr. Yellowlees states that it is to him a constant source of surprise and regret, now that ordinary nursing has become so fashionable, that no ladies are impelled by the love of God and their neighbour to help us in the difficult and delicate work of nursing the insane.

Hants.—A case is mentioned by Dr. Manly which strongly shows the necessity for examining the physical condition of all patients as soon after admission as possible.

"A male patient, reported to have been a hard drinking man, admitted in a very excited state, was casually examined by one of the Assistant Medical Officers in the bath room, and was bathed under the inspection of the Head Attendant, when nothing particular was noticed about him. For two days subsequently he was secluded on account of his maniacal excitement, after which he became calmer, and gradually improved. Eleven days after admission, from information which reached me, I made a personal examination of the man, and discovered that two ribs on one side, and one on the other were broken. It appeared he had been restless, and had had a struggle with an attendant two nights previously, and this attendant he charged with having knelt on him. The attendant entirely denied having done so, or used any violence towards him. The matter

was investigated fully; first by myself, and afterwards by two members of the Committee, and was referred to the Commissioners in Lunacy. There was no evidence which could have procured a conviction even if the attendant, who came here with a good character, had been prosecuted, so no prosecution was instituted. The patient has since been discharged recovered, and the attendant has left at his own request. The Commissioners have, however, suggested a rule, which has been sanctioned by the Secretary of State, to the effect, that 'Every patient on admission shall for the future be carefully examined by one of the Medical Officers, to ascertain if he is suffering from any internal injury or disease, and that he make a written report thereon in the Case Book.' "

The rule recommended by the Commissioners is good; but it must be remembered at the same time that, 1st, a patient may be so excited that it is impossible to make a careful examination of his chest; and, 2nd, that a man may have several broken ribs, and a careful examination fail to detect the fact. Of the truth of the latter statement, surgeons can furnish ample proof; and further, a sane man may go about his ordinary duties with at least one broken rib, and be ignorant that he has sustained any injury.

To prevent violence to patients is a sacred duty with all asylum medical officers, but the mere fact that a patient has been injured in a struggle with an attendant does not of necessity imply culpable violence.

Hereford.—Dr. Chapman is of opinion that a diminution has occurred in the number of curable cases admitted. His explanation of the fact we reproduce without comment, beyond this that his experience must be peculiar when he can state that especially are those cases rare which present evidences of much weakness and exhaustion.

"Whatever may be the special causes that lead to a case of illness being one of insanity instead of other disease, it is certain that, broadly, the causes of insanity, and especially of acute insanity, are the same causes as those of other diseases; and my hypothesis is this, that the higher wages that have ruled in the country for some years, and the greater attention to sanitary matters, have really diminished the annual production of acute insanity, as well as of other diseases. The increased wages act by improving the general well-being and especially the dietary of the labouring classes; I distinctly demur to the theory that increased wages are a curse by increasing intoxication; they unquestionably are to some, and to more in some districts than others; but taking the mass these cases are exceptional. We do not hear of the 19 or 99, whatever the number is, to whom they are an unmixed advantage; the 20th or 100th who is prepared to make any blessing into a curse, thrusts himself on our notice, but this is certainly not a case for applying the rule *ex uno disce omnes*.

"With a view to apply some test to this theory, I have obtained

by the kindness of Dr. Sandford a return of the rates of mortality for certain districts in the county for the last six years, in order to see whether improved sanitation and increased wages have really had that effect on the general health of the county, which *a priori* I thought they must have had, and one indication of which I thought I had detected in the decrease in the actual production of insanity. These returns bear out the hypothesis in a remarkable manner, much more so than I had expected from a consideration of the national statistics in the quarterly returns of the Registrar-General. They show a remarkable decline, steadily and gradually going on from the year 1874 to 1878, and a sudden and great rise in 1879. This is contrary to the statistics of the Registrar-General, the small mortality of the third and fourth quarters of 1879 balancing the high mortality which the first quarter owed to a severe winter; in Herefordshire the severe winter no doubt had its effect, but the wet summer was a health giver to towns rather than to the country, and no doubt failed to diminish Hereford mortality, whilst there was a strong factor on the other side, viz., the comparative high wages which had for some time ruled among agricultural labourers, fell to as low a point as ever. That this is, if a partial, at least as far as it goes, a correct explanation is further supported by the fact that the least urban districts, Bromyard and Weobley, show the greatest comparative increase, at least their 1879 rate is their highest in six years; in the others the earlier years are still higher than 1879." We might quote further, but refrain, for we feel that Dr. Chapman has as yet too limited materials to settle a very important but most difficult question.

Inverness.—In connection with the fact that the re-admissions amounted to one-sixth of the total admissions during the year, it may be pointed out that this is one of the very few asylums which do not publish their statistics in the form recommended by the Association.

Whilst it is stated that "the condition of the establishment in reference to health has been more satisfactory is also evidenced by the death-rate only amounting to 5·4 per cent. against 8·8 per cent. of the previous year, showing a decrease of 2·5 per cent. below the annual average mortality since the opening of the asylum," it is to be feared that a mistake has been made in the calculation. In table 1 the deaths are given as 23, and the average daily number resident during the year as 365. If, therefore, 365 yield 23 deaths, what should 100 yield? Answer 6·3. If calculated on the total number under treatment, 481, the result is 4·7 per cent.

It is quite evident that every effort is made for the comfort of the patients, and to reduce the inconveniences of overcrowding to a minimum.

Ipswich.—On the vexed subject of intemperance as a cause of insanity, Dr. Chevalier remarks:—"No doubt intemperance is a cause of insanity, but it is sometimes an effect instead of a cause, and perhaps compilers of statistics do not sufficiently distinguish between the

two. Whether a man is suffering from excitement of brain, the commencement of acute mania, or from nervous depression, the commencement of melancholia, he is likely to have recourse to stimulants, and his neighbours and the public attribute the subsequent and palpable outbreak of insanity to excessive drinking. As a rule, women do not drink, and yet insanity is as prevalent among them as among men, if not more so. One ought not to lose sight of the peculiar constitution of the weaker sex, nor of the emotional disturbance occurring at certain periods of life, nor of the indirect effects, such as poverty, disgrace, and disease (which themselves become secondary causes of insanity), produced by the vicious habits of the drunken head of the family. After making all due allowance for these considerations, our lunatic asylums cannot truly be said to derive a very large proportion of their inmates from among the victims of intemperance."

Isle of Man.—This asylum is much overcrowded. In pointing out this fact, Mr. Wood very properly takes the opportunity of urging the necessity for providing accommodation for private patients. Such an arrangement would be economical to the authorities, and a great convenience to many who, under present circumstances, must send their friends to asylums out of the island.

Kent, Barming Heath.—In this asylum beer has ceased to be an article of ordinary diet. On this subject Dr. Davies says:—"I mentioned in my report last year that for six months we had been giving less beer to the patients. The alterations then made were that beer was only issued to workers, and to them only at meal times, and in lessened quantities. These changes I found to work so well, and to be attended with such decidedly good results, that I felt convinced it would benefit the patients to go without beer altogether. I accordingly recommended this, and since December 1st beer has ceased to be an article of "ordinary diet," and is now only issued from the surgery as a medical extra.

"At the same time all the attendants and servants had their beer stopped, a fairly adequate sum of money being allowed them in lieu thereof.

"The change has fully realised my expectations. Truly the time it has been tried is short, but the beneficial indications are plainly manifest. No extra diet has been given to the patients to compensate for the beer, nor do I think any will be required."

It would be well if the Association tables were adopted in preparing the statistics.

Killarney.—Year by year Irish medical superintendents draw attention to the evil method adopted of sending a very large proportion of the patients to the asylum in charge of the police. This is a decided wrong, which should be brought under the notice of the proper authorities for speedy remedy. It is a genuine Irish grievance. Dr. Wood says:—"Most of the patients are still committed as

dangerous lunatics, many of them being perfectly harmless, and no matter how long they may remain under treatment, they must always continue to be classed as criminals, although prisoners who have become insane during their imprisonment cease to be classed as criminals at the expiration of their sentence. It seems to be the rule to *arrest a patient because he is insane*, on the information of the friends, whereas the Act of Parliament intended that only those who had been arrested for some indictable offence, and were *afterwards* found to be insane, should thus be committed to the asylum. If it was more generally known that the *ordinary* admission form could be obtained at the asylum, and patients admitted therein without delay, fewer patients would, I think, be branded as criminals."

Lancashire, Lancaster.—Space forbids us to notice at any length Dr. Cassidy's remarks on the admissions during the year, but he gives the following short table on the rate of mortality, which teaches a most valuable lesson. It clearly proves that asylum treatment, be it medical or hygienic, has greatly improved, and reduced the mortality in spite of the supposed fact that general paralysis and other grave forms of brain disease have increased in frequency during the last 50 years.

"In this asylum, taking the six decennial periods from 1819 to 1879, the average annual death rate, relatively to the average number resident, has varied as follows :—

Average rate from 1819 to 1829 = 17·41 per cent.

do.	1829 to 1839 = 21·58	"
do.	1839 to 1849 = 11·24	"
do.	1849 to 1859 = 9·89	"
do.	1859 to 1869 = 8·93	"
do.	1869 to 1879 = 7·62	"

"The first great reduction took place at the period above referred to, when Mr. Gaskell abolished the restraint system, and introduced many improvements in management and treatment, in which he was warily supported by the Committee of Visitors, and by the late Dr. de Vitré, then Visiting Physician. Since 1849 the reduction has continued, but not, of course, in the same marked degree."

Lancashire, Prestwich.—In directing attention to the facts that the death rate was only 5·2, and that the general hygienic condition of the asylum was good during the year, Mr. Ley attributes these satisfactory results chiefly to the improved arrangements for the comfort and health of the patients. He says :—

"I have no hesitation in attributing the low death-rate of the past five or six years to the improved sanitary arrangements adopted, and to the increased comfort in the accommodation provided for the patients. The introduction of steam and hot-water heating into the wards, as auxiliary modes of warming to open fire places, has been attended by most marked beneficial results. Among the insane, as

indeed among other classes of the community of similar low vitality and impaired function, the maintenance of an equable and reliable temperature in the living rooms is of the utmost importance as regards the health and well-being of the inmates. The almost entire immunity which we have lately enjoyed from erysipelas, congestive diarrhœa, and other diseases incident to closely packed communities, may safely be attributed to the fact that in this damp and foggy climate during the prolonged cold of the past year, we have been able, in nearly all the wards, to maintain a dry equable temperature with sufficient ventilation, which, before the introduction of artificial heating, it was found impossible to maintain by the use of open fire-places alone."

As to the correctness of Mr. Ley's remarks there can be no doubt. Not only during the day but at night the same care should be taken to maintain sufficient warmth in the dormitories and single rooms. Especially should this be attended to where restless patients pass the night. In very many, if not most, asylums, great improvements could be effected in this direction. An excited general paralytic, who spends the night hammering on his room door, at a temperature slightly above freezing point, has every chance of dying of congestion of the lungs in a very few days. All single rooms for excited patients might with great advantage be maintained at 70°-80° during the whole year. Without doubt the mortality would be diminished. A recent visit to this asylum left a very favourable impression in regard to its management. In spite of disadvantages as to construction, Mr. Ley has rendered it one of the most comfortable county asylums we know.

Lancashire, Rainhill.—In directing attention to the bad effects of the presence of criminal lunatics in ordinary asylums, Dr. Rogers says:—"So-called criminal lunatics may be broadly divided into two distinct classes—those whose offence is the direct outcome of their mental disease, and those who are offenders first and become insane afterwards.

"Of the former class, the most frequent cause, in those who are brought to this asylum, of their infringing the laws, and of being consequently committed to prison, is the disease known as general paralysis of the insane.

"Of the eleven patients admitted last year, three were thus affected, and, on examining the admissions for the last five years, I find that out of 38 prisoners admitted, nine, or one-fourth, were the subjects of this disease, and it may be reasonably inferred, considering that 'secretiveness' is one of the most common features of this disease, that their offences were simply symptoms of an existing but undetected disease of the brain.

"It is too much to expect magistrates or police officers to be able to discriminate between the incipient stage of a disease of the mind and a case of simple moral delinquency, and it is doubtful even if the majority of medical practitioners would detect the earlier phases of

this insidious disease, but the fact remains that these cases are committed to prison when their proper destination should be a lunatic asylum."

These remarks confirm the conclusions of Dr. Wilkie Burman who wrote a short paper on this subject a few years ago.

Lancashire, Whittingham.—A fault in the drainage is one of the most serious defects in a public institution, and it is astonishing how frequently it exists in recently built asylums. Whittingham has only been occupied seven years, yet its sanitary state is evidently unsatisfactory. That three cases of fatal puerperal fever should have occurred in a county asylum in seven years is not creditable to the manner in which the disposal of the sewage had been arranged. The following paragraph from Dr. Wallis's report exposes a curious arrangement for allowing sewer-gas to obtain entrance to the building :—

"One rather serious exception to the general healthy state of the asylum remains to be noticed. Three cases of typhoid fever occurred early in the year, and recovered, but the nurse who attended upon them, going home for a holiday, sickened and died. After a lapse of eight months, a male attendant was attacked, but recovered; and a month or so later, a nurse was found to be suffering from the same disease. About this time several female patients were seized with suspicious diarrhœa, and one of them (who died from an acute pulmonary attack), was found, on a *post-mortem* examination, to present unmistakable appearances due to typhoid fever. All the cases of diarrhœa were isolated as on the first occasion, and every precaution taken by disinfection, &c., to prevent the extension of the disease. At this time, a woman, who had been confined in the infirmary, died of puerperal fever; and it was ascertained that two fatal cases of puerperal fever had previously occurred since the opening of the asylum. The various closets and cesspools were found in perfect sanitary condition, and yet these several cases of typhoid fever, springing up in the most opposite parts of the asylum, pointed to some grave defect in the sanitary arrangements. Attention having been drawn to the down-spouts which carry the roof-water into the sewers inside the corridors, the floors were opened out, and some of the junctions of these pipes with the drains were found imperfectly made, affording an opportunity for the leakage of sewer-gases into the wards. Such of them as were found defective were made sound, and since then we have had, up to the present, no return of diarrhœa or typhoid fever."

Limerick.—From this excellent report we extract the following paragraphs bearing upon the influence of prosperity and adversity on the population. Dr. Courtenay says :—"The comparison of the number admitted during the past year, which has undoubtedly been a period of depression amongst all classes, with the number given in the asylum returns of more prosperous times, raises certain subjects

of interest, both as regards the study of insanity and the health of the general public as to—1. The number of admissions. Whether the depression in trade, with its accompanying adversity, poverty and want, has caused an increase of insanity? 2. The type of insanity in those admitted. Was it of recent origin, requiring special treatment, and likely to get well; or was it of long standing, the harmless patient requiring no special care, and only sent to the asylum because his friends were no longer able to support him at home? 3. Has the season of depression of trade had the effect of decreasing alcoholic excesses; and, if so, have the number of cases of insanity resulting from this cause been decreased?

“To give satisfactory answers to any of these questions will require not only a long period of time to elapse, but the comparison of statistics of insanity taken from a very large area.

“From the limited information supplied by the past year, we find that the number of admissions have not increased, rather are they below the average for the last ten years—and in only two cases could I clearly trace the cause to commercial losses. I allow that family trouble and adversity may play a larger part than the friends are willing to tell, but, as a rule, more than one cause has been at work. Generally when the whole history can be carefully investigated, some deranged nervous power may be traced in some member of the family. Seldom is it that the brain gives way without some defect of the nervous system, having been handed down from generation to generation.

“Although the class of cases admitted was not favourable as regards hopes of recovery, there was no reason to show that they were sent to the asylum only because their friends were unable to support them at home. In almost every case the lunatic was brought either for his own protection or that of others, or with a view to his ultimate recovery. Hence it cannot be supposed that the number of the insane in the care of friends, or wandering through the country, is large; otherwise the numbers applying for admission should have increased during the past season of scarcity.

“From the return of the causes of insanity in those admitted, we find that alcohol played a considerable part as usual. At the same time, the belief is becoming more prevalent that seasons of depression have the effect of diminishing excessive drinking, and thus lessen the number of attacks of insanity resulting therefrom. And I believe time will show this result—not only for the County of Limerick, but for the whole of Ireland. On the other hand, it must be remembered that poverty and want must weaken the physical powers of those whose nervous organisation is naturally impaired, and thus render them more likely to become a prey to mental aberration.”

Lincoln.—Six cottages, at a very moderate rental, have been erected on the asylum grounds for married attendants. This is an important improvement. A very good dormitory for epileptic and

suicidal patients has been built. The ground plan is published in the report. It may be noted that for the last twelve or fourteen years the mortality has been very high. In 1879 it was no less than 19·5 for the men and 13·2 for the women; being a mean of 16·2 per cent. on the average numbers resident.

Monmouth, &c.—Although this asylum appears to be excellently managed by Dr. McCullough, and most economically, it is overcrowded, and the mortality is high. Large and costly alterations are evidently required before the accommodation can be considered equal to that provided in most county asylums. The Commissioners report that three deaths among the women were due to erysipelas, which disease also attacked several other patients in the female division, without proving fatal. They concur with Dr. McCullough in the opinion that the defective arrangement, and insufficient number of water closets on that side of the house may have contributed to the development of the disorder. On the male side, where these defects have been remedied, there has not been a single case.

Montrose.—Extensive structural improvements are being carried out, but to these it is not necessary to refer in detail. Dr. Howden records an unusual case of recovery from what appeared to be advanced phthisis. The man “was carried from the cab to what was thought to be his death-bed; contrary to all expectation, he, by slow degrees, improved, and at the end of eleven months was discharged sane and in robust health, having added 40lbs. to his weight. A case like this shows that bad physical health, if not of a contagious character, should not be a ground of non-admission into an asylum, and the rule at one time commonly adopted, that a person in a dying state cannot be admitted, though favourable to statistics, has no justification in humanity. That restoration to sanity and increase to bodily weight are almost invariably coincident, is again illustrated by Table XV., which shows that of the 48 persons who were discharged recovered, only two had lost weight; the exceptional cases are explained by the existence of serious physical disease. It is also true, however, that persons lapsing into chronic dementia commonly gain in weight, though not at the same rapid rate as those who recover; diminution indicates the passing off of the acute symptoms of exaltation or depression, which almost always co-exist with a low standard of physical health.”

Newcastle.—In anticipation of changes in the lunacy statutes, Mr. Wickham remarks on the present method of admitting private patients. “At present they are sent on what is termed the ‘order’ of a private individual, their mental state being certified by two medical men, who must have seen the patient separately from each other, and also from any other medical practitioner. It is only repeating what I have often said in these Annual Reports, to say that no man should be deprived of his liberty except, as is now the case with *pauper* lunatics, on the order of responsible public officers, such

as magistrates. The objections to this course are much fewer than the advantages arising from it. At the same time it must not be forgotten that no method which can be devised will give satisfaction to many of those who are most affected by it." Mr. Wickham very properly denounces the views of those who would make consultations illegal in lunacy cases. There is nothing in the letter, and certainly nothing in the spirit, of the Acts which would deprive a patient of the benefit of the attending physicians consulting as to what should be done. If such were really the case, the Lunacy Acts would stand much more in need of amendment than they do at present.

Norfolk.—In March a male patient was attacked with erysipelas of the face, and from that time until August the disease was more or less prevalent in the asylum. There were altogether twenty-five cases, and in four it proved fatal. All the patients attacked were feeble and therefore unfavourable subjects for this the idiopathic form of the disease. During the epidemic there was a great prevalence of ulcerated sore throat amongst the staff. The drainage and all other sanitary arrangements were carefully examined, but without affording any explanation of the outbreak, beyond the overcrowding of the wards. About the same time there was a general epidemic of erysipelas in different parts of the county.

In this asylum also beer has ceased to be an article of ordinary diet. On this subject Dr. Hills says: "On December 1st we prohibited beer as an article of diet at dinner, excepting for about thirty patients, who do hard manual labour, and who seem the better for some stimulant and encouragement. Thus far abstinence has proved very beneficial. The patients now eat more than formerly; there is less waste, and also less excitement and turmoil after dinner. For the last seven or eight years, beer has not been given to about 160 cases of idiots, imbeciles, paralytics, &c., and I had for some time felt that in allowing beer we were creating a habit which could not be continued at the patients' homes, and I observed that in the majority of our permanent inmates, it proved exciting, and engendered a craving for further stimulation. I may add that I am not a teetotaler, but I strongly recommend total abstinence for those who are deficient in self-control, whether they have been accustomed to the use of alcohol from childhood, or have become addicted to it later in life through injudicious advice."

Northampton.—It is not creditable to British architects that they so often fail in making sufficient arrangements for the heating of a large building like an asylum. The original fire places in this asylum are bad and the heating apparatus a complete failure. To guard against insufficient warmth in any future year, Mr. Greene has arranged to have slow combustion stoves fitted up throughout the building.

The drainage appears to have been radically bad, and to have caused much sickness. Mr. Greene says: "During the first eight

months of the year cases of dysentery and erysipelas were of constant occurrence on both sides of the asylum. There were about twelve fresh cases of dysentery and four of erysipelas every month, and although neither disease was of a severe type, the outbreak was a source of much anxiety to the Superintendent, who felt convinced the system of drainage was at fault. The Visitors requested Mr. George Bohn, C.E., of Hull, to inspect the sanitary arrangements of the asylum, and report thereon. This gentleman . . . sent in a voluminous report embodying his suggestions for remedying the faulty points in the system, which were numerous. The most essential of his suggestions were at once carried out, and immediately afterwards the dysentery entirely disappeared, and the erysipelas fell to one case in a month. During the last few weeks there has not been a fresh case."

Northumberland.—Alterations have been made for the protection of the building from fire, and it is proposed to build six cottages on the asylum estate for married attendants.

In noticing the fact that fresh lunacy legislation is impending, Dr. McDowall says: "The subject of private asylums is sure to be dealt with in a more or less thorough fashion. Of late years the public mind has been so inflamed by agitation that it is almost impossible for it to arrive at an unbiassed judgment. I at once admit that there are some private asylums where the accommodation is poor, the treatment mean, and the expense excessive—these cannot be too soon got rid of; but there are others conducted in a most enlightened and liberal manner, and where the management is better than in some public institutions. For the poorer middle classes the Government should certainly make some provision, by which cases of insanity could be treated well and cheaply. At present, almost all such patients must either enter private asylums or those maintained by public rates. If they go to the former, the serious expense is a cause of anxiety and sometimes of privation to the relatives. If, on the other hand, they enter the latter, they associate with persons of imperfect education and rough habits. An insane person is seldom so far out of his mind as to be altogether indifferent to his neighbours; sometimes he is morbidly sensitive on the matter, and I have seen decidedly bad results from a delicately nurtured person being obliged to spend her days and nights with people she felt to be her inferiors in every respect."

Whatever of truth there may be in the following paragraph, it is not at all likely that the suggestion, to turn every superintendent into a lecturer on mental diseases, will be universally approved. Still, many medical officers of asylums would be delighted to have a few young, intelligent men, fresh from the schools, to whom they might lecture, and from whom they might learn a great deal of what is new in the medical and surgical worlds.

"Whilst the outcry against private asylums has been so loud and

prolonged, public opinion seems for the present to be satisfied with the condition and management of county and borough asylums. This in one way is a blessing, in another it is the opposite, for it prevents the carrying out of improvements, about the necessity for which the public knows nothing. Although decided abuses have disappeared, it cannot be maintained that a system is perfect which allows incurable cases to accumulate at the rate of 1,500 a year. It is a dreadful state of affairs to find that in England and Wales alone there were, at the end of 1878, 62,107 pauper lunatics, and that 90 per cent. of these were incurable. At last the public will awake to the fact that it has unconsciously failed in its duty to these people. Much has been done to improve the condition of idiots; more will yet be done as the success of the work is more generally recognised. If the enterprise which has done so much good for them could be infused into the management of the insane, equally good results would no doubt follow, and even in a pecuniary sense the work would be successful. It is painful to observe in the discussions on this subject how the main idea seems to be, how to keep the incurably insane in decent comfort on as little as possible. It seems to be forgotten that their hopeless state is a rebuke to science and philanthropy which should urge every effort to prevent others lapsing into a similar condition. If in every asylum there were, according to its size, from four to twelve clinical clerks studying mental diseases under the instruction of the Medical Superintendent; if the staff of attendants were at least doubled, and included schoolmasters, drill-masters, &c., and if the medical staff were compelled to study annually a given subject, and to send in a report to a Government or other Board, then we might hope for good results; chronic lunacy would diminish, and what remained would not be such a burden on the country."

Roxburgh, &c.—As the changes amongst the subordinate staff are rather frequent, it is hoped that by the erection of cottages for married attendants suitable men may be obtained who will remain in the asylum service a reasonable time.

Opinions vary very much as to the influence of self abuse on the production of insanity. Mr. Grierson is evidently impressed by its evil influence, and we hope that renewed attention may be directed to the subject. It cannot be denied that in many cases of insanity recovery is made impossible by the evil habits of the patients, and the usual methods of preventing masturbation are not satisfactory and are indeed dangerous.

Royal Albert Asylum.—It is important to find that the advantages of the boarding-out system are recognised by the authorities of this Asylum. It cannot be denied that systematic training, combined with domestic care, is the best form of education for the weak-minded. "The attention of the Committee has been directed to the report of the Special School for Idiots at the Hague, which has been in exist-

ence twenty-five years. There the system of boarding-out has been adopted whenever practicable ; and of the 417 pupils who have been under the control and instruction of the Institution since its establishment, no fewer than 148 were boarded out. The experiment has also been tried, in one or two cases, in connection with the Royal Albert Asylum, and with marked success, proving that its extension would be beneficial to the working of the Institution. It is hoped that the removal of certain legislative restrictions upon the treatment of imbeciles, who are at present legally classed with raving lunatics will, whilst preserving all necessary safeguards for the proper care of such persons, result in promoting the system of boarding-out in the neighbourhood of Training Institutions, as well as in facilitating the admission into such institutions of imbecile children and young persons of the higher grades of intelligence, for whose benefit the educational and industrial agencies of such establishments are best adapted."

Royal Edinburgh Asylum.—The continued prosperity of this asylum is proof, if such were still wanted, that advantage will at once be taken of arrangements in a public institution for the reception of private patients at low rates of board.

There are several topics touched on in this report, which might be noticed here ; but it may be well to extract some remarks on the causation of insanity, especially as efforts are being made at present to devise a satisfactory statistical method of arranging them.

"No question is more frequently asked of the physician, in regard to any case of mental disease, than this—'What is the cause of the disorder?' and while the constancy of the question might seem to imply a conscious ignorance in regard to the causation of the disease in most cases on the part of those interested in them, yet there is no disease where some fact or fancy or other is so commonly assigned as a cause. The symptoms of the disease are so distressing to relatives, its very occurrence so terrible and mysterious, that it seems to be a relief and a comfort to bring it into the category of ordinary events, where cause and effect prevail. A man takes heart disease, and he is chiefly concerned as to the proper treatment, and what will be the end of it. He scarcely asks or speculates about the cause. He tacitly assumes that he has had some little original weakness or predisposition there. That is the very last thing admitted in regard to mental disease. And yet every thoughtful mind must recognise the fact that, if weakness and predispositions are transmitted from one generation at all, there must be more chance of brain weakness being transmitted than those of any other organ. It has the most delicate tissue in the body, and its functions show it to be the highest organic structure yet known in nature. It is on the brain that the anxieties and strains of life act, that the poverty and struggle for existence chiefly tell, and that the exhaustion from dissipation and bad lives for the most part take effect. Looking at the lot and lives of mankind, it seems more wonderful to have so many sound brains, than to have the few unsound

ones. It shows clearly that nature tends more towards a good sound type than a bad one; that the fittest tend to survive, and propagate their good rather than their bad qualities.

"The causes of different diseases increase in complexity and difficulty of recognition, from the simple violence that breaks an arm, the overstrain that dilates a heart, the subtle poison that creates a fever, up to the inherited weaknesses, to which so many of the constitutional diseases owe their origin. There is none of the latter class so complicated and difficult to expiscate as insanity, for in it we have to take into account not only the bodily history of the patient, and that of his ancestors, but also his far more subtle and difficult mental history. It is so difficult to unravel so tangled a web satisfactorily in any one case, that it has scarcely ever been done. It is only in very distinguished families indeed that the data can be obtained. My friend Dr. Ireland has lately, from historical data, traced the morbid mental history of the royal family of Spain for several hundred years, and the result is one of extraordinary interest, but no definite law of heredity can be arrived at from it. Beyond a doubt a man may suffer in mind for the sins of his grandfather, and his mental power may be affected adversely by the sort of lives his parents led. When the cause of any case of insanity, therefore, is stated to be one fact or event in the life of the individual affected, one may safely conclude that this is merely one link in a long chain of causes. Our table of causes, therefore, may be taken to represent the most obvious or the strongest antecedent facts that had a causal relation to the disease, and not the whole causation."

Salop and Montgomery.—The committee of this asylum has long been known as obstructive, almost as bad as that of Cambridge. At last the Commissioners have rebelled and threatened to report to the Home Secretary. Although at the end of 1879 there were all but 100 patients boarded in other asylums, it is proposed to enlarge the accommodation by only 200 beds. The Commissioners report:—"The asylum is still without a proper recreation hall, without a room where any large number of the patients of each sex could be brought together at meal times, without suitable workshops, without a satisfactory laundry, without a hospital for infectious cases, without a decent mortuary, without internal hydrants, without single rooms sufficient numerically for the troublesome patients, now in unusually large proportion here, and the land is moreover scarcely enough for the employment of the asylum patients, a large number of whom belong to the agricultural class."

To Dr. Strange these and other deficiencies must be the source of great annoyance, and in the meantime his duties must be more than usually irksome.

Somerset and Bath.—Dr. Madden-Medlicott's report deals largely in medical and surgical details. We are glad to see any deviation from the beaten track in such documents.

The asylum, but chiefly the female department, was in a highly unsanitary state during part of the year. Five deaths occurred from facial erysipelas out of 46 patients attacked (13 males and 33 females), and four deaths from enteric fever out of 20 cases, 13 in patients and 7 in attendants, all on the female side.

The history of these epidemics is given with much detail, "in order," says Dr. Medlicott, "to form a trustworthy basis for further enquiry, for only thus can sufficient importance be attached to such vexed terms as contagion or infection." The sewage arrangements have been completely overhauled, and not a day too soon, for when "erysipelas was raging, an enormous amount of sewer air seems to have been pent up in the drains, actually having been seen bubbling up through the water in the pans of the water-closets on both sides of the asylum."

Stirling.—At the date of the writing of this report, the asylum was overcrowded, and plans were under consideration for its enlargement.

The following paragraph from Mr. Maclaren's report treats of a very important subject, so important that it would be well for him to examine the subject thoroughly, and to publish his results in this or some other medical journal. It is more than probable that his opinions as to the types of insanity prevailing in former times will be changed by further research. Besides, it must always be remembered that insanity as seen in an asylum is a modified disease; formerly it was often made worse by foolish treatment, now it is modified for the better by more enlightened management. But the whole question as to change of type in recent times is an exceedingly difficult one, and cannot be settled by the experience of any single observer. It is almost certain that Mr. Maclaren's experience has been exceptional, for he is able to say that, during the past eight years, during which he has seen several thousands of insane persons, he has not seen more than two or three cases of the worst form of acute mania.

"Much as the modern system of treatment has done to ameliorate the condition of the insane, and so ultimately to induce greater quiet and tranquillity in asylums, there is, I venture to think, another important element to be taken into account. It is difficult to believe that the types of insanity now met with are the same as those which formerly existed. Take one instance as an example:—There is no variety so constantly referred to by older writings as that of acute, dangerous delirious mania. Indeed, the furious madman, with corrugated brow, so constantly referred to in older writings as that of acute, dangerous, staring eyes, matted hair and torn raiment, is constantly met with, both in scientific works and the books of the poet and dramatist, as the characteristic type of the person of unsound mind; or, failing this, the victim is described as a prey of black despair. Until quite modern times, if I mistake not, little variety was known from these two broadly contrasted varieties. Now, within my own experience, and I

do not think it is a solitary one, the acute delirious maniac is becoming rarer and rarer, and fortunate it is for the success of modern lunacy practice that it is so. Were many such cases sent to us, with the murderous tendencies ascribed to them, and their sleepless ingenuity for evil, it is difficult to see how we could do much other by them than was done of old, restrain them in some fashion. In the past eight years, during which I must have seen several thousands of insane persons, I cannot say that I have seen more than two or three cases which really belong to the worst variety of this type. There is still certainly an acute mania, but it is very seldom indeed that those labouring under it are either dangerous or destructive. They are often noisy enough, and somewhat demonstrative; but if allowed space to work off their superfluous energy, they are very harmless to themselves and others. On the other hand, varieties of insanity representing mental enfeeblement are, I believe, constantly becoming more common. Probably at the very head of these is that dread disease, general paralysis of the insane, which is entirely a product of modern times—of the fierce struggle for wealth and power, and the enormous weight, not of mere work, but of high pressure, worry and strain, which is entailed on those who compete in the race. There are, too, many subtle varieties of melancholia brought on entirely in the same way.”

It is reported that “no stimulants and no narcotics are employed.” This is to be regretted, for beyond doubt many melancholiacs are thereby deprived of some few hours’ peace of mind. At night the fate of the melancholiac is peculiarly distressing. As he does not disturb his neighbours or spend his time in muscular exercise which engages his thoughts for the time, he lies in bed wide awake, perfectly wretched, and wishing for death. A man in such a condition needs rest as much as a patient labouring under cancer, and is more benefited by it. If such patients get a good night’s sleep they are wonderfully improved by it, and rapidly gain weight as a rule. But, even were the facts the other way, a miserable wretch is entitled to as much peace of mind as we can give him. Even should the case be incurable, follow the rule of relieving the symptoms and let the man die in peace. It may be remarked in passing that it is almost only in Scotch Asylum reports that the fact is stated, that narcotics are not used. Why should this be?

Surrey, Wandsworth.—In several reports this year the unsatisfactory arrangements for the disposal of criminal lunatics are noticed. Nothing could be more troublesome than the state of things indicated in the following paragraph from the visitors’ report to Quarter Sessions.

“During the first quarter of the year two female patients were sent to the asylum from H.M. Prison at Wandsworth, under the orders of the Secretary of State. No such order had been made since 1865,

when on a representation being made to the Home Office by the Medical Superintendent of the desire expressed by the Visitors that criminals should be removed to Fisherton House, the Secretary was pleased to make an order accordingly. The Visitors have always strongly felt that patients of this class are quite unsuitable for association with ordinary lunatics. Application was made to the Home Secretary to order the removal of the two in question, and he consented to make such order *provided* the Authorities of the place of settlement consented to pay the amount which would be charged for their maintenance. One remains to the prejudice of the ordinary patients, notwithstanding the Secretary of State's remark in the House of Commons (as reported) to the effect that so long as a man was undergoing his sentence the counties had nothing to do with him? The liability to the payment of the expenses of maintenance in such a case has been, and is still the subject of litigation. In the third quarter another criminal patient was similarly sent, and was reported by the Medical Superintendent on the 29th July to have recovered. The patient, however, being a prisoner, could not be discharged by the Visitors, but remained in the asylum awaiting the orders of the Secretary of State until the 20th of August, when he was removed to H.M. Prison at Lewes, this asylum having been used for that period as a prison in every respect with regard to this patient. The attention of the Legislature and the Government has been called to this objectionable state of affairs, but no remedy has been provided."

A remedy may, however, be soon expected, as a departmental committee is, or was, engaged on it.

Warwick.—An interesting case is recorded by Dr. Parsey; that of a sailor who laboured under a very transient attack of insanity due to privation. It belongs to a very interesting and little studied class of cases. "The man (C. W., æt. 25), during his short stay with us, gave no indication of mental disorder, though it was stated to have been, for two or three days previously, markedly manifested in the workhouse from which he was sent here. Sufficient time was taken to test his condition, and he was then sent on his way, better nourished, and, thanks to a fund I have been able to establish for the aid of discharged patients, better clothed and provided in every way than he had probably been for some time past. He appears to have been a discharged sailor, tramping from London to Liverpool in the very severe weather of the latter part of November, and could give a straightforward account of himself till after leaving Banbury on the morning of the 27th. He was found at about 11 p.m. the next night by a policeman in Coleshill, in this county, about thirty-five miles from Banbury, with little clothing on him, strange in manner, and in a state of utter mental aberration, but apparently not under the influence of drink. He was detained under medical observation at the workhouse until the 2nd of December, when he was brought

here. For the first two days in the workhouse he seemed quite demented; on the third was more rational, and wanted to go on his way; on the fourth there was a little excitement of manner. Whilst here he was rational, and of good average intelligence. His condition was probably one of transient mental disturbance induced by privation, fatigue, and exposure for several days in an unusually inclement season. He stated that his mind had never before been affected."

Wilts.—Various improvements and extensions continue to be made in this asylum. Four cases of typhoid fever occurred, and there can be no doubt that the disease was due to escape of sewer gas into the building. In calculating the death-rate, a mistake has been made or the numbers have been misprinted. The average numbers resident were, males 266, females 306, total 572. The deaths were, males 33, females 25, total 58. The percentages on the average numbers resident are given as 10·4, 6·9, 8·5 respectively. They should be 12·4, 8·1, and 10·1. As all numbers are gone over at least twice, when they are used in official returns, it is curious that such evident blunders should have escaped detection.

Worcester.—In his excellent report Dr. Sherlock has several paragraphs on the causation of insanity. Want of space compels us to leave them unnoticed further than by saying that, taking the two sexes together, he found intemperance to have acted as the cause of the attack in 14·3 per cent. of the admissions.

Yorkshire, East Riding.—In Table III. of this report, a serious error occurs as to the mean mortality during the nine years the asylum has been occupied. It was evidently discovered shortly after publication, and a circular sent out to correct it. But curiously enough the figures are still wrong, as can be easily proved by anyone who will take the trouble to go over them. As originally published they are, males 10·41, females 9·42, mean 9·85. As corrected in the circular they are, 12·92, 11·44, and 12·21 respectively. They should be 12·3, 11·1, and 11·7. This is another illustration of the absolute necessity of all statistics being thoroughly revised before publication.

Yorkshire, West Riding.—Dr. Major has adopted a method of ascertaining the history of the admissions, which may with advantage be adopted elsewhere. He says: "With the object of obtaining information regarding the apparent cause and origin of cases where no history has accompanied the patient, or of supplementing information when this has been defective, printed circulars have of late been issued to the relatives of patients when deemed advisable, the enquiry thus made being limited to a few simple and definite questions. Of the results of this procedure it is too early to express a decided opinion, still, already in several instances, important facts have in this way been elicited, which would otherwise probably have escaped notice, and it is thought that, in the case of a large County Asylum at least, the practice indicated may, as a supplementary measure, be of practical utility."

The general character of the admissions continues very unfavourable. In fully one-half the prognosis was from the first bad.

To talk of narcotics as "chemical restraint," appears to us an abuse of language; we are therefore pleased to find Dr. Major stating that he continues to use nervine sedatives freely. He does not consider an annual report the place to discuss the question of the efficacy or the reverse of these remedies; but he holds the belief, and acts on it, that, given judiciously, their effects in a large class of cases are distinctly beneficial.

Yorkshire, South.—Dr. Mitchell is to be congratulated on the result of the special enquiry which was held concerning the death of a patient who sustained injuries of the bones of the chest. At the time that the enquiry was ordered, a belief prevailed that malice towards the asylum authorities, rather than any special philanthropic interest in the patient, was at the bottom of the agitation. The Commissioners report, *inter alia*, "That he was not in the asylum subjected to any such culpable neglect, or ill-treatment, as could have produced the fractures. That while in the asylum, his general treatment was as good as it could be in a large public asylum, where a special attendant in each single room for every restless case is an impossibility. That while in the asylum, the deceased met with an accident on the 22nd June last, which possibly produced the fractures."

2. German Retrospect.

By DR. W. W. IRELAND.

(Continued from p. 124, April, 1881).

Insanity from Lead Poisoning.

Dr. Bartens ("Zeitschrift," xxxvii. Band, 1 Heft) observes that poisoning with lead is not so common as poisoning with alcohol, simply because lead is not so often introduced into the system, as it rarely affects any one who does not have occasion to work with that metal. From a wide survey of French and German literature, he has collected a few descriptions of lead poisoning where the nervous system was affected, and he has carefully studied nine cases which he met with in the asylums of Liegburg and Duren. Three of these were painters; one was employed at a factory for making white lead; the others worked at the lead mines. In most instances the insanity either preceded or closely followed an attack of lead colic, though occasionally there were none of the ordinary symptoms of lead poisoning. The insanity may take an acute or a chronic course. Generally the patients have suffered from derangements of digestion, such as want of appetite, foul breath, and constipation, more rarely diarrhoea.

They become emaciated, the complexion sallow, and the gums show

the well-known bluish tint at their margins. They are also often troubled with giddiness and pains in the head, either limited or confined to one place, with noises in the ears, flashes of light before the eyes, double vision, tremulousness, and other symptoms of nervous disease. The sleep is unquiet, and often interrupted by disagreeable dreams. The disposition of the patient is altered; he is sad and anxious, and liable to be distressed about trifling misfortunes. By-and-bye the progressive emaciation, the pains in the head and body after meals, with the increasing weakness, give the patients too much grounds for anxiety. They become irritable and distrustful, and imagine themselves to be neglected or persecuted, or poison put into their food. Hallucinations succeed, which torment and disturb them, so that they lose self-control, become aggressive and violent, destroy things, and frequently meditate suicide, sometimes the nervous disorder is introduced by an epileptic or cataleptic fit; sometimes there are tremblings and startings confined to one limb, or paralysis of one group of muscles. When the insanity, following on lead poisoning, is of an acute character, it generally takes the form of passing attacks of mania. The patients become suddenly much excited, cannot rest, seek to escape, become furious when any one stops them; destroy what they can lay their hands upon, rave, talk, and shout in a senseless manner; have hallucinations especially of hearing and sight, and neglect the duties of cleanliness. The tongue is generally dry, and the lips black. They suffer from want of appetite, or swallow everything that is given them without chewing it. This condition lasts generally for about two days, when it often passes away with a sound sleep. Sometimes again they fall into a deep stupor, only murmuring a few incomprehensible words, and often refusing all nourishment. In other cases the affection comes on with great apathy, the patients do not dare to speak, as they afterwards explain, and eat nothing because they fear poison, or because voices forbid them to do so.

The worst cases fall into a state of deep sleep or stupor, and after two or three days become suddenly maniacal, crying day and night, and being violent and destructive. The prognosis in the acute form is in general good. In about two-thirds of the cases recovery follows, it is seldom delayed for more than a few weeks, and generally commences with a deep sleep. Sometimes, however, the patients die from paralysis or epileptic attacks.

The chronic forms of insanity, following lead poisoning, generally come under the type of deep melancholy, with hallucinations and delusions. The patients believe themselves persecuted, and imagine the attendants and other lunatics to be some imaginary persons. They show great anxiety, amounting to despair, which increases as the night comes on. The memory suffers much, they fail to recall the right word, and they have grandiose and exaggerated ideas. The appetite is bad, and they have often to be fed artificially.

Attempts at suicide are not uncommon, the feeble state of the digestion is increased by delusions and hallucinations, which prevent the patients from eating. In many cases there is slight paralysis, inequality of the pupils, difficulty of speech, starting of different groups of muscles. The prognosis in the chronic cases is bad, and when the agitation calms down they are apt to fall into a demented condition.

Insanity from lead poisoning has been known to affect animals; cows, which had eaten mashes out of pails painted with white lead, have been affected with convulsions, and attacks of fury, pushing the head forwards against their cribs and racks. Similar attacks have been observed with dogs and cats.

The Pathology of Lead Poisoning.

Dr. C. Monakow has a long paper in the ("Archiv.," x Band, 2 Heft) on this subject, in which, as is common with German observers, he reviews what has been done by those who have written on the subject before. It appears that the results of different pathologists are rather contradictory. Some hold that the disease exists only in the muscles; others find it in the spinal cord and brain, and there is scarcely an organ in the body which has not been treated as the principal seat of the diseased condition in lead poisoning. It is stated, as the result of chemical analysis, that the largest proportion of lead is found in the bones and in the spinal cord.

Dr. Monakow has carefully studied one case of lead poisoning which ended in death. The pathological examination was conducted in a very laborious manner, and the results are given in great detail. The patient, a painter by trade, was a man of 56, who had for 35 years suffered from occasional attacks of lead colic. During this time his wife, who was quite healthy, had five children who all died of convulsions before they were two years old. Dr. Monakow cites another case where the patient's wife had five children who died in the same way, and five abortions. The symptoms had become aggravated during the last ten years; there was paralysis of the extensor muscles, which gradually became worse, and then extended to other groups of muscles; renewed attacks of colic disorder in articulation, supposed to be owing to paralysis of the hypoglossal nerve, dulness of hearing, and paresis of the right arm. Then followed general symptoms of ataxia, diminution of sensibility on the left side, with hyperæsthesia of the right side of the body. The train of mental symptoms was weakness of intellect, loss of memory, sleeplessness, maniacal disturbance, confusion of thought, and delirium, during which he tore his clothes, and was dirty and aggressive. This was accompanied by emaciation and loss of strength, and then came, with total loss of power of articulation, sinking of temperature, and death through coma, nearly five months after his entry into the

Asylum of St. Pirminsberg, in Switzerland. Altogether the train of symptoms had some resemblance to general paralysis, but there was no atrophy of the lips or paralysis of the muscles of the pharynx. Similar cases have been described by Vulpian and Raymond wherein loss of sensibility of the left, and hyperæsthesia of the right side, dulness of hearing, and ataxia were met with in an aggravated form, though ending in recovery.

On examining the brain there was found fluid within the membranes, and shrinking of the frontal and temporal gyri, but no adhesions of the pia mater. The brain was of unusually solid consistence. The coats of the vessels were materially thickened so that the wall of the vessel was thicker than the lumen. There were fatty degeneration and destruction of nuclei, alterations observed in most cases of insanity. There were also deposits of pigmentary matter, not only in the sheaths of the vessels, but also in the nervous substance.

Dr. Monakow thinks that this pigmentary matter has nothing to do with hæmatoidine, and to be of albuminous composition, formed from the breaking down of the round cells and nuclei. He also noticed hyperplasia of the neuroglia, a great many bladder-like ganglion cells, and abundance of spider cells. Mierzejewski holds that these spider cells are artificial productions caused by the re-agents with which the nervous tissue is treated. They are made out of free nuclei, surrounded with processes of coagulated fibrine, more rarely they are composed of stellate cells.

In the spinal cord the dura sack was found to be full of serous fluid; the pia spinalis was discoloured here and there, with small deposits of blood, and under the microscope was observed an increased number of amyloid bodies, the ganglion cells reduced in quantity, and many of them having the nuclei obscured by pigment. At the level of the sixth cervical vertebra the right anterior horn was smaller than the left. Between the sixth and eighth pair of spinal nerves the ganglion cells were found reduced in number, and there were numerous little extravasations of blood in the central grey matter, but there were no abnormalities found in the roots of the anterior nerves, though they were somewhat smaller than usual. There were sclerotic patches in the posterior horns, on the left side; the degeneration implicated the whole horn, which explained the total insensibility met with in the left side of the body; in the right horn the destruction was not so complete, implicating only the half and hyperæsthesia of the right side of the body was observed.

Examination of the region of the pons showed a well-marked atrophy of the racemose ganglion cells of the nucleus of the fifth. The roots of the trigeminus appeared to be smaller than in the normal brain, but the tissue looked healthy under the microscope. The nucleus of the auditory nerve seemed to be smaller in size, and many ganglion cells to be atrophied. The roots of the glossopharyn-

geal vagus and accessory were also atrophied, and the ganglion cells of the hypoglossal were degenerated into brown coloured granules. The connective tissue was increased. The origin of the right hypoglossal was more atrophied than the left.

In reading over the articles of Dr. Bartens and the careful study of Dr. Monakow, as well as the description of cases in the "Journal of Mental Science" (July, 1880), by Doctors Rayner, Robertson, Savage and Atkins, I cannot take away any distinct generalisation of the mental features of insanity from lead poisoning. The symptoms described as typical by one author are contradicted by another. We have mania, melancholia, dementia, a tendency to violence or to sadness and suicide. The absence of suspicion is noticed by one author; its presence by another. Sensorial disturbances and hallucinations of sight and hearing are evidently common. The optimism and boasting of general paralysis are wanting, but there is difficulty of articulation, while ataxic movements and tremors of the body are not unfrequent. Epileptic fits and partial paralysis are often present; and partial anæsthesia is sometimes met with. The history of the case, the occurrence of intestinal derangements, and the blue line in the gums are helps to diagnosis not easily lost sight of when the medical man is fairly aware that lead poisoning may be the cause of insanity, and of epilepsy and idiocy in the children of the patient. The prognosis seems, compared with most other forms of insanity, to be good; the patient even improving without any special treatment, though he may fall into incurable dementia, or even die under the influence of the lead poisoning.

The Lesions in Hydrophobia.

Csokov ("Centralblatt für Nervenheilkunde," 15th September, 1880) does not confirm the observations of Weller in hydrophobia. The latter observer found general hyperæmia of the brain and its coverings to be of constant occurrence.

Csokov found in the medulla oblongata, especially in the root of the vagus, a partial widening of the vessels. In those animals which are frantic he finds an infiltration of the walls of the vessels; but where the animal is less excited the infiltration has passed beyond the vessels, and there is sometimes a lymphoid element in the nervous tissue. He affirms that the fatty corpuscles described by Weller as pathognomonic of hydrophobia occur in all dogs, especially in old ones. Lutkemüller examined the brain and spinal cord in three cases of hydrophobia and found hyperæmia with small extravasations of blood as well as the deposits of lymphoid bodies in the perivascular spaces. He thinks that these lesions are rather the consequences than the cause of the disease. On examining the blood it was found that there was an increase in the white corpuscles and a great heap of colourless or faintly yellow mikrocytes.

Dr. Zillners, who has examined six cases of hydrophobia in the human subject, found twice capillary extravasations in the brain. In all cases the membranes were hyperæmic and somewhat œdematous; sometimes the membranes at the base of the brain were thickened. The brain appeared to be always full of blood and serum, and the hyperæmia to be greatest in the cerebral ganglia, the pons, and the medulla oblongata. In the lesser parts of the spinal cord and its membranes thickening of the sympathetic of the neck was observed.

Changes in Nerves after Stretching.

Dr. L. Witkowski ("Archiv.," xi. Band, 2 Heft), has made some researches on man and animals to ascertain the changes which take place on the tissue of nerves which have undergone the operation of nerve stretching. A few days after he observed the tearing of the nerve tissue into irregular pieces and the discontinuity or complete failure of the axis cylinder, the appearance of a light granular mass or the falling together of the empty nerve sheaths (white substances of Schwann). No pathological appearances were noticed towards the central portion of the nerve. He affirms that the favourable effects observed to follow nerve stretching are not purely dynamic or through alterations of the circulation, but that the stretching causes an interruption in the continuity of the fibres and a degenerative process which extends to the periphery. Regenerative processes soon commence, but there is always a period of degeneration though the amount of congestion or inflammation is not usually great. He regards nerve stretching as a sort of stimulus to the nervous substance through which the normal processes of absorption and new formation are hastened and increased. Dr. Witkowski refers to three lithographic figures which have been missed out in the number of the "Archiv." supplied to us.

Epilepsy caused by a Nail running into the Head.

Dr. Rotter, in a Polish Medical Journal, reported in the "Centralblatt für Nervenheilkunde" (1st August, 1880), describes the case of a baker, who, going into a house, struck his head upon the low roof and felt himself fixed. After he had pulled himself away he felt a pain on the site of the blow, but could find no wound or bleeding in the head. For two or three days there was swelling in the place, which soon passed away. A short while after he noticed a raised spot. This opened showing a small bleeding wound, which, after a time, closed. For three years the patient remained quite healthy, but in October, 1879, there were attacks of rigidity of the left arm which lasted some minutes, and returned three or four times in the week.

In the beginning of November, 1879, there was a sudden attack of giddiness and convulsions in the whole body while he was pushing his bread into the oven, so that he fell to the ground without losing con-

sciousness. He saw everything that was going on round him, and called his wife to help him ; but she could not understand him on account of his stammering. The duration of this attack does not appear to have been long. After three hours a lighter one came on, which lasted some minutes, succeeded by a slight trembling of the body.

Dr. Rotter describes the patient as a man of 45 years of age, of middle size, of relaxed constitution, pale complexion. He lay in bed with an anxious expression, complaining of general weakness, stiffness and giddiness. The understanding, motor powers, and functions of the body were not affected. There was a shallow depression on the coronal suture near the junction of the sagittal suture with some swelling and weak granulation ; on cautiously sounding, an opening through the skull was made out. Under treatment the epileptic attacks became rarer, and of lighter gravity. One day on combing his hair the patient brought out from the opening a piece of a nail seven centimètres long and two thick, and two millimètres broad. The wound soon healed up, when the epileptic attacks and all rigidity and other nervous symptoms entirely ceased.

The Handwriting of the Insane.

Dr. Erlenmeyer has a pamphlet upon the physiology and pathology of writing, as well as a review of a thesis upon the writing of the insane, by Christopher von Schroeder, in the "*Centralblatt für Nervenheilkunde*," 15th September, 1880. It is interesting to hear that Goethe used to say that he was seldom deceived in the estimate which he made of a man's character taken from the handwriting. William von Humboldt and von Holtman professed to have a similar skill. Lavater gave out that he knew even the temper of his correspondent when he wrote, whether he was angry or pleased. It certainly would be a great advantage to mankind in general if this knowledge were better diffused. That the handwriting indicates the approach of old age and a tendency to insanity is not likely to be contested. In some forms of insanity the writing is not affected, in other forms it obviously is.

Dr. Erlenmeyer states his belief, founded upon a passage in the "*Talmud*," that the ancient Hebrews wrote with the left hand, and that our use of the right hand is owing to our being taught to write with it, and that the greater use of the right arm determines the predominance of the left side of the brain. The old Hebrews, he says, because they were left-handed, had a better developed and better nourished right brain. He is clearly not aware that left-handedness is mentioned as a peculiarity in the Book of Judges iii, 15, and xx, 16. The truth is, it is as easy to write from right to left as from left to right. Indeed most educated Hindustanis can write the Nagari and Arabic characters which go in opposite directions with equal facility, and the Greeks, who got the art of

writing from the Phœnicians, in the most ancient times, used to write from right to left, as did the Etruscans. The tendency to slope the letters to the left side, which the author has remarked in the insane, and which is very noticeable with idiots, probably depends a good deal on the position of the body. Dr. Erlenmeyer quotes an account of a man who had an apoplectic attack and hemiplegia of the right side with aphasia. He could not write with the right hand, and when he was made to try to do it with the left, he wrote very skilfully from right to left his name in mirror writing, *i.e.*, writing like the impression on blotting-paper, which can be best read by looking at it in a mirror. Even when he copied a row of figures, he did it in mirror writing, and if, with great attention, he was brought to write some words or figures in the usual way, there was an overpowering tendency to fall into the mirror writing. He had a great difficulty when writing, in writing from left to write. He remained in the hospital for six months, during which the aphasia disappeared, and the power of the right hand improved when he began to write with the right hand, which he did also in mirror writing.

Dr. Erlenmeyer, from this and from other cases, holds that there is a natural tendency in both hands to write in a centrifugal direction, the right hand to the right and the left hand to the left.

Disease may cause the writing to be unformed, or atactic and tremulous. The atactic form of writing is seen in all diseases which cause ataxia of the muscles of the hand, whether affections of the cerebrum, cerebellum, or spine. In the same way all diseases which cause trembling naturally cause tremulous handwriting.

Dr. Erlenmeyer has examined agraphia very narrowly with the following conclusion. As the aphasics can use their tongues for all other purposes but that of speaking, the agraphics use their hands to all fine work except writing. Spamer saw an agraphic girl who sewed very skilfully. It appears from these facts that the co-ordinating centres of spoken and written words are distinct and apart from one another. We have many examples to show that disorders in writing and oral speech do not always go together. In general, however, they do so, which proves that both centres are narrowly connected, and that their paths cross.

In opposition to some French writers who have asserted that mistakes in spelling and grammar are pathognomonic of the beginning of the stage of dementia in general paralysis, Dr. Erlenmeyer holds that the errors in the writing of paralytics are one of the earliest symptoms of the disease, and a valuable aid to diagnosis.

Therapeutic Qualities of Chloral.

Dr. Julius Krueg called the attention of the Medical Society of Lower Austria (March, 1880) to the value of chloral in the treatment of severe convulsive fits which he had learned in the West

Riding Asylum Reports. He exhibited a guinea-pig, which had been made epileptic by section of the sciatic nerve. A fit could be induced by nipping the animal's cheek, but after a subcutaneous injection of chloral the fit could no longer be induced in this manner.

He gave the instance of an imbecile girl who had fallen into the status epilepticus, was unable to swallow, and seemed to be in imminent danger, but who was saved by the administration of chloral by injection. He thinks that giving it at bedtime has got a good influence in preventing nocturnal attacks, and quotes the statistics of Testut as to the benefits derived from its use in eclampsia parturientium. Of 55 patients who have taken chloral in this affection, only four died, *i.e.*, 7·4 per cent., but where other remedial means had been used there was a mortality of 29 per cent. Of 29 patients who got the chloral alone, only one died, *i.e.*, 3·4 per cent.; while in those cases in which it was used, after other medicines had been employed, there was a mortality of 9 per cent.; and where chloral was used along with other drugs the death-rate was 13·3 per cent.

It would thus seem that chloral had better be used alone. Where anæsthetics were used the mortality was 19·4 per cent.; where bleeding was used the mortality was 35 per cent.; and where drastic purgatives were used the mortality was 56 per cent. Testut begins with a dose of 4 grammes, and follows it up by smaller doses where they appear needful.

Krueg has two patients affected with general paralysis who have symptoms from which a watchful attendant can indicate the approach of an epileptic seizure. When they tell him of these symptoms, and he finds the pulse to become quicker, he gives a dose of chloral, on which sleep, but no epileptic attack, follows. When the administration of chloral is neglected after these premonitory symptoms the fit is sure to follow. He affirms from statistics that chloral is the best remedy for tetanus. Dr. Krueg sometimes gives chloral by subcutaneous injection. This requires a larger syringe than usual. He takes two grammes of the salt to ten of water, and with this makes four injections. In injecting this large quantity of water care must be taken not to do it too fast.

3. *French Retrospect.*

"Archives de Neurologie, Revue Trimestrielle des Maladies Nerveuses et Mentales" publiée sous la direction, de J. M. Charcot. Paris, 1880.

"L'Encephale, Journal des Maladies Mentales et Nerveuses." Paris, 1881.

The remarkable interest felt in the study of neurology is evidenced by the foundation of these journals.

The untiring energy of M. Charcot will doubtless give its impress to the journal which appears under his name, assisted by M. Bourneville. M. Charcot states, in his introduction, that the special character of the Archives will be the admission of papers tending specially to establish the intimate relations between nervous pathology and the other parts of medicine.

We wish the journal every success.

A glance at the contents of the first number of "L'Encéphale," together with an indication of the names of its conductors, will enable our readers to apprehend its scope, and to accept the guarantee that it does not unreasonably assume a want which it is not prepared to meet efficiently. To these ends, it may suffice to state that the literary staff of "L'Encéphale" includes the names of Dr. Ball, Professor of Mental Pathology, and Dr. Luys, physician to the Salpêtrière, with the editorial assistance of Dr. Ernest Chambard, to all of whom the pathology of the brain and spinal cord has long been indebted for valuable contributions.

The editors claim for the new journal three characteristics, viz., impartiality, with a practical and a sceptical spirit. Under the last named feature is signified, "not the vulgar irony which opposes, without distinction, all new ideas," but the scientific spirit which accepts facts, ideas, and hypotheses only after discussion and proof, seeking truth alone.

A prominent place is to be given in "L'Encéphale," to therapeutics of nervous diseases, more especially of the insane. The journal will comprise original communications, lectures, essays on medico-legal medicine, in relation to mental alienation, clinical observations, reviews, bibliography, and records of the proceedings of learned societies.

The journal opens with a contribution by Dr. Ball, on "Functional Cerebral Ischemia," which relates, as examples of the condition, cases of sudden mutism induced, in the writer's opinion, by spasm or cramp of certain arteries of the brain.

Dr. Ball also follows with a description of a rare, peculiar, and very inconvenient nervous affection, which he designates *Impulsion Intellectuelle*. The subject of this nervous affection, despite the utmost exertion of self control, is compelled to the ejaculation of words or sentences without any power to prevent these utterances. A case is related in which a young woman, aged eighteen years, having been trained in a convent to an exaggerated piety, passed into a state of exalted mysticism, and in all places and at all times would constantly utter the words *Jesus ! Marie ! Joseph !* The public attention thereby excited led to her being considered a lunatic ; nevertheless she had no other delirium, while the absurdity and incongruity of the act was as evident to herself as to others, she had no power to restrain the exclamation. In another instance, a boy, aged fifteen

years, acquired some fancy of the mysterious nature of the numeral thirteen—the word *treize* was incessantly passing through his mind, but did not go beyond the mental conception. Through this incessant mental act he was disabled from pursuing his studies, although he presented no other intellectual disturbance.

We have ourselves a patient, a lady over fifty years of age, who for several years past interlards her conversation with a similar delirious ejaculation, “Oh ! dear me ! Oh ! dear me !” She has no power whatever to check her utterance.

Dr. Regis relates several cases of unilateral hallucination, and traces a clinical and pathological relationship between these and unilateral morbid conditions of the organs of the senses on their nervous centres ; treatment directed to these having in many cases caused the disappearance of the illusions.

Dr. J. Luys contributes to the study of cerebral morphology, an elaborate paper (with illustrative drawings) upon the histology and morphology of idiocy. Dr. Luys also describes a process which he adopts for the mummification of the brain, or its preservation in a dry state.

Dr. Chambard relates a case of primary epithelial cancer of the pia mater.

In the remaining departments of “L’Encéphale,” it is but scant justice to say that the editors have afforded some guarantee for a realization of the attributes that they have claimed for the journal ; certainly the first number is eminently practical in character.

“Leçons sur les Maladies Mentales” par B. Ball, Professeur à la Faculté de Médecine de Paris.

Prof. Ball states that the object of these *Leçons* is to furnish young physicians with a general view of the subject of which they treat, and to enable them to avoid errors, so much the more deplorable inasmuch as they involve the most serious consequences, and to facilitate the first steps of the curriculum to those who feel naturally drawn to studies of this description.

The opening lecture, entitled “La Médecine Mentale à travers les Siècles,” is a rapid but very instructive sketch. The speaker does not spare the old French school of Mental Alienation. This lecture is printed in a separate form.

These *Leçons* are marked by the ability which characterise all the writings of the accomplished Professor.

PART IV.—NOTES AND NEWS.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

A Quarterly Meeting of the Medico-Psychological Association was held on Wednesday, March 9th, at Bethlem Hospital, the President, Mr. G. W. Mould, in the chair.

The following gentlemen were duly elected members of the Association, viz., Charles Knight Hitchcock, M.D., M.A. Cantab., of Kingsdown House; Patrick Edward Campbell, M.B., C.M. Edin., Senior Assistant County Asylum, Hatton, Warwick; Alfred Henry Newth, M.D., Haywards Heath.

Dr. Fox read "Notes of a Case of Acute Dementia" (see Clinical Cases).

In reply to Dr. Hack Tuke, Dr. Fox stated that there was no rigidity of the muscles and no voluntary resistance.

In reply to Dr. Major, Dr. Fox said that he felt hardly qualified to say whether, in acute dementia, there must be such an absence of all mind as to negative the idea of any delusion being present. Considering the utter apathy, the expression of the countenance, and loss of voluntary power, even delusion which was only expressed for one or two days would hardly justify the present case being classed as one of mania. There might have been a brief period of mania, which might not have been quite over when the patient was brought in, but her symptoms agreed in the greater number of respects with dementia than anything else.

Dr. HACK TUKE said that it was difficult to draw the line where delusions cease to act upon the mental condition. It was often difficult to ascertain how far the condition was due to acute dementia or to an overpowering delusion. This did not seem to him to be a case in which a sudden attack produced arrest of mental power so much as a case in which the basis was delusional mania, which might very rapidly pass into a condition of acute dementia. In many cases there were to be found both conditions. In some cases there would be a condition of suspension of the mental faculties—the patient would know but very little of what was going on; but in other cases, with a delusional basis, there would be a very considerable amount of remains of delusion, which would influence that condition. The expression of the face ought not to be taken too strongly as an indication of what was called acute dementia. He (Dr. H. Tuke) had a record of several cases in which the patient's expression would certainly indicate, in the first place, what is called acute dementia—the mouth half open, the features of the face relaxed, &c.; but the fact was that those patients recovered, and on recovering said that even during the period when it might have been thought from the patient's expression that it was a case of acute dementia the patient owned to having had some absorbing thought, some terrific delusion. It was very much to be regretted that in the particular case before them there had been no post-mortem examination. It would have been interesting to have known the condition of the brain. From the reports of M. Etoc it appeared that that physician had found more or less cedema in most cases.

The PRESIDENT said that he could call to mind a somewhat similar case happening in the third attack—that of a young lady at Cheadle in a state of acute maniacal excitement. She was first very weak and low—in fact, just what Dr. Fox described—and in the course of a few weeks became stronger, and then perfectly well. This came on again some two years after in an exaggerated form, and with similar treatment she again recovered. At her third attack she had the appearance described. She was extremely emaciated. He

had thought, many a time, could not one feel almost for those unfortunate people who are said to starve their relatives? It struck him during the Staunton trial that it was a case where any amount of nourishment given would have had no effect on the woman's general appearance. There would have been very little assimilation. The unfortunate men might have misunderstood the case altogether. Cases of the kind Dr. Fox had brought before them were very interesting as bearing upon even ordinary criminal charges. It seemed a monstrous thing that the woman should have been removed, dying as she did in twenty-four hours afterwards. She must have been in a very critical condition.

A MEMBER asked whether any definite opinion was formed as to prognosis?

Dr. Fox said that with reference to the President's remarks as to the removal, they all knew how difficult it was to resist the importunities of relatives on such occasions. Every precaution was taken; there was a very large carriage and a water bed. He quite allowed that they should have preferred to have kept the patient under their care. They resisted the request of the mother as long as they could, especially as it seemed to be grounded upon a foolish superstition, but when they saw that nothing they could do could save the patient's life, they did not see their way to keeping her. In regard to prognosis, on her admission her physical condition was such that they told her relatives that they were very anxious about the result. With the pulse at 120, extremely weak and compressible in its nature, with increased debility, as evidenced by skin eruptions, &c., they could not come to any but a very gloomy prognosis. The girl was dangerously ill physically when admitted, and she hardly made any positive improvement.

Dr. WINSLOW asked whether she passed rapidly into dementia or by degrees?

Dr. Fox said that he did not think that there ever was an acute maniacal condition, and from the action of the patient's malady they hardly ever inferred that such a condition existed. The mania, if it existed, must have been of a very sub-acute form. The lapse from that condition into one of absolute apathy was extended over about a week. She gradually became more and more fatuous and silly. It was not absolutely sudden, but the period was not very long.

Dr. WINSLOW said that at the time of the Staunton trial he took great interest in the matter of the assimilation of food by the insane, and wrote to over five hundred men for their opinions on the case with a view to obtain a repeal of the sentence. He had published a number of most interesting cases in reference to the non-assimilation of food by the insane. It was a very extraordinary fact that insane people might sometimes be fed with the stomach-pump three or four times a day and yet the food would not assimilate. In the case of the Stauntons, he thought it one of the greatest blots on the criminal law that those poor people should be in gaol.

THE PRESIDENT remarked that it certainly did strike him at the time that he had had one very similar case to that of Mrs. Staunton—very little dementia but a very large amount of food. The patient was still existing, and she was only just then assimilating her food so as to gain weight. She remained so certainly three years. The digestion seemed to be perfect as regarded excrement, &c., but there was no increase in weight. He did not wish it to be understood that he impugned the justice of the decision in the Staunton case, but he did enquire into and contrast a case he had under his care at that time with the Staunton case, and since then he had noted similar cases, and he did think still that injustice might accrue unless those cases were very carefully considered.

Dr. CHAPMAN thought that the feeling and desire on the part of the friends was one to be respected, and not to be deprecated in any way. He then referred to Dr. Fox's statement that at one period of the case the amount of food was specified to have been $1\frac{1}{2}$ pint of milk, and the remainder was made up of

essence of beef and brandy. Those latter were in a certain sense stimulants, and not food. The only nourishing food was the pint and a half of milk a day—hardly sufficient.

Dr. Fox said that some of the results which might be claimed from that food were almost miraculous, and he ventured to protest very strongly against the opinion that had been put forward that beef tea and Brand's essence of beef were not nourishing. They had patients who lived upon nothing but milk and beef tea. The reason which actuated him in speaking particularly regretfully of the removal of patients to their homes was that in some cases in which the disease had been unsuccessfully combated, and when they did not know the physical conditions underlying that disease, it would be advantageous, for the sake of their own knowledge and in the interest of those patients who might have similar symptoms, that they should see the last of the patient, so that, if possible, they might ascertain by post-mortem examination what the real and logical explanation of the case was. That was one of the chief reasons for deprecating the removal of the patient.

The PRESIDENT remarked that he was certainly under a misapprehension upon this point. The patient died directly after removal, and he had gathered that she had died very much sooner than she otherwise would have done in consequence of the removal. It would certainly be a most excellent thing if all the patients could be removed home to die (hear, hear). A patient in a private asylum, however, very rarely died without the friends being near. In the asylum at which he presided they actually had a guest house in which the friends came and resided.

Dr. Fox said that such was also the rule in the asylum with which he was connected. It was a very rare occurrence for any patients to die without their friends having been with them for several days previously.

Dr. KESTEVEN drew attention to a paper by Dr. Sansom, in the "Lancet," on defibrinated blood used as an injection. He himself had found great improvement to result from the injection of doses of the blood, and he thought it might be worth the attention of the members of the Association to enquire into this, and to use it in cases where ordinary beef tea, egg, wine, &c., fail. It could be easily obtained from any butcher.

Dr. HACK TUKE said that a series of cases successfully treated in that way was published two or three years ago by Dr. Seguin, in the "Archives of Medicine."

Mr. HAYES NEWINGTON said that the most prominent symptom of acute dementia was the water-logging of the body generally, and it was not assuming too much to think that the brain might be in the same condition. In those cases of acute dementia there was a loss of retaining power in the arteries, and there might be a throwing out of the serous matter in the brain tissue. In a paper, which he had published some years ago, he had suggested as a name for this condition *anergic stupor*, and nothing would cause it sooner than the effusion of serous matter into the brain tissue. It was possible that delusion might be mixed up with acute dementia. Delusion might arise, and upon that might come the effusion. He still believed that the condition of acute dementia was dependent upon the serous exudation. It might be complete in cases of acute dementia, or less complete in cases similar to that brought forward by Dr. Fox.

Dr. HUGGARD read a paper on "The Means of Determining Causation in Insanity" (see Original Articles).

Dr. MAJOR remarked that many of the suggestions made were intricate, and required very considerable attention, much more than they had been able to give during the reading of the paper. He thought that they had arrived at a time when it had ceased to be necessary to combat the fact that they could not rely upon the statements in the certificates; in fact persons making use of those statements in the certificates would commit a fatal error, and make their

returns erroneous. As to the issuing of certain questions to relatives, that he agreed to to a very limited extent. All insane persons had not relatives who were sufficiently educated to give careful and intelligent notice to those points, and it was practically useless to give a large number of questions to relatives who were illiterate. With pauper patients it was necessary to get the relatives to call, and then to make personal enquiries of them. Where circulars were sent out the enquiries were limited to two or three of the principal points, such as hereditary tendency, temperament, &c., and if these points were settled some progress had been made towards the elucidation of the causes.

Dr. HACK TUKE said that such a paper required to be read quietly at home. He thought that the author was a little too desponding with regard to the value of the statistics. It would be valuable to know the proportion which insane persons bore to the sober and the non-sober population, but the fact that that information was not given, and we do not know how often the alleged cause failed, did not destroy the value of the statistics. A patient suffering from facial paralysis might say that he had come across a cold current of air that morning, and they might have little reason to doubt this was the cause. It would not invalidate the value of the record of such a case to say that there were hundreds of people who had come across currents of cold air and had not been attacked by facial paralysis. In comparing the amount of insanity among 100 non-sober and 100 sober people, the conditions in other respects must be similar, for instance the predisposition to mental disease. He should assent to Dr. Huggard's formula if qualified by the expression, "other things being equal." It might be quite possible for there to be less insanity among 100 non-sober than 100 sober people, simply because other more potent causes were in operation among the latter class. But for all that, drunkenness might have caused all the insanity attributed to it. In regard to the classification of causes they should be guided mainly by practical considerations. At the same time if they could get good information as to the number of causes, supplemented by enquiries from the patients' friends, a certain amount of valuable information would be obtained. The causes, however, should be combined. It was quite clear that if only one cause were taken, they could not get to the bottom of the causation of the attack. Dr. Micklethay having allowed him to look through the case books at St. Luke's Hospital, he had taken fifty cases and noted the different causes. In five cases, for instance, heredity was the only known cause. In three other cases they found heredity and domestic trouble, and so on, making in all sixteen cases in which there was heredity. (A tabular statement of cases at St. Luke's was here exhibited.) These cases, given on a small scale, were merely brought forward to illustrate the principle. For arriving at the complex causes of insanity, some mode of proceeding, similar to that which he had adopted at St. Luke's Hospital, would be necessary. The great object was to study each individual case, and if the medical assistants would get to the bottom of a certain number of cases, individually, more good would result than from obtaining the causes as given in the statement in a total number, however large.

Dr. WINSLOW said that in furnishing the statistical tables to the Commissioners in Lunacy, it did not follow, because certain causes were given in the statements, that those stated causes were to be adopted as the correct ones. Medical superintendents became acquainted with the patients and with the patients' friends. After careful investigation they could arrive at a proper idea of the supposed cause, and he thought they might assume that the data of the Commissioners in Lunacy were formed upon the data supplied from the medical superintendents of the asylums.

Dr. RAYNER said that all the medical superintendents would agree that the statements received from the workhouses were utterly untrustworthy. As to the suggestion that queries should be sent out for the friends of the patients to fill up, he thought that the result would not be very satisfactory. He himself

would be loth to decipher the answers, at all events from friends of pauper patients, and the information supplied would be very misleading. The most satisfactory plan would be to obtain an interview with the friends of the patients, and to endeavour to sift out the cause from them; but, even then, the most careful examination might not be successful in arriving at the truth.

Dr. CHAPMAN differed from Dr. Tuke, and upheld the view put forward in the paper. If in 1,000 persons exposed to draught one suffers from facial paralysis, the influence hardly appears; but if out of a million persons not exposed to draught, only one suffers, the influence is clearly established. He wished particularly to point out that the system of recording the causes of different forms of insanity, all mixed up together, was very misleading. It was just as though they had lumped together in the same table the causes of a broken leg and of a fever.

Dr. HUGGARD said that he quite understood that the tables of the Commissioners in Lunacy were based upon what the superintendents of the asylums reported to them, and that the superintendents' reports were based, to a very small extent, upon the statements in the certificates. It was, however, rather upon the interpretation of the facts that he had wished to dilate. The case mentioned by Dr. Tuke is hardly a parallel one. It is much less complicated, and the effect quickly follows the cause. It nearly approaches in simplicity the character required by the method of difference. In one other respect, too, the case differs from insanity. In insanity there are numerous ill-defined causes, several of which are apt to act in conjunction. Bell's paralysis, on the contrary, is due to a few well defined causes; one or other is always present, and the absence of the others can generally be shown. But to adopt the mode of reasoning employed in regard to insanity, causation, or at least connection, is proved, and proved only if the paralysis occurs more frequently in those who have been exposed to a draught of cold air, than in those who have not been so exposed. This is, he thought, incontrovertible if we assume as before that the causes are independent or without hostile or favourable influence upon each other. He thanked the members of the Association for the attention they had shown to his paper.

The PRESIDENT announced that the Annual Meeting of the Association would be held on Tuesday, the 2nd of August.

QUARTERLY MEETING AT GLASGOW.

A Quarterly Meeting of the Medico-Psychological Society was held in the Library of the Faculty of Physicians and Surgeons, Glasgow, on Wednesday, the 30th day of March, 1881.

Among those present were—Drs. McDowall (Chairman), Clark, Dodds, Dunlop, Ireland, Johnston, Macleod, Philip, Robertson, Rutherford, Turnbull, Yellowlees and Urquhart.

The minutes of last meeting were held as read.

Dr. R. B. Mitchell, of the Fife and Kinross District Asylum, was elected an ordinary member of the Association.

Dr. URQUHART showed a hand and wrist sent by Dr. Mackintosh, of Murthly illustrating a case of sympathetic insanity, due to disease of the joint, in which recovery followed amputation.

Dr. TURNBULL read a paper for Dr. Clouston, on "A Case of Melancholic Stupor (three years) and Recovery."

The CHAIRMAN—I suppose the remarks in the paper, as to the constant and interrupted current, conveys the experience of us all. At Morpeth electricity has been tried, especially the interrupted current, but was found to be of no use. The patients disliked the battery very much.

Dr. IRELAND—I have been very much disappointed with the use of elec-

tricity for medical purposes, and I do not know whether it has repaid the trouble and loss of time it has cost me. Dr. Andreani mentions a case, similar to this one, and attributed the recovery to the use of electricity. A condition in which the motor centres were functionally inactive would afford an explanation of such a condition as that described in Dr. Clouston's paper.

Dr. ROBERTSON—This case shows the importance of distinguishing between acute dementia and melancholia. One point referred to in the paper as a means of diagnosis, is the facial expression. In the cases which I have seen in which there was a difficulty of diagnosis, there was this distinctive feature however which helped diagnosis of the case, viz., that in one of melancholia with prevailing delusion, there is generally in the expression something which indicates mental concentration, or an overpowering of the mind with delusion rather than a complete prostration of the faculties. Had this case been under my charge, I would have felt inclined to agree with Dr. Clouston that it was rather one of acute dementia than melancholia.

Dr. PHILIP—What were his chief delusions?

Dr. TURNBULL—He did not express them at the time.

Dr. CLARK—I saw the patient some time ago. He had then the same delusion that he had when he came into the asylum, viz., that his brain was oppressed by a small spirit. He said that there was a partner within his brain who occupied the upper part, and evolved ideas on which he acted. Among other things this partner made him refuse food.

Dr. YELLOWLEES—This is a most interesting and encouraging case. We have all seen similar cases, and this shows that we ought never to despair in our treatment. It seemed that it was not the result of brain apathy, but of a determined resolve. It was an insane impulse that brought the man into this abnormal condition. It is very remarkable that, by this resolution he so perfectly simulated that which we recognise as the direct result of disease.

Dr. TURNBULL—Do you think that this accounts for the loss and gradual return of reflex action?

Dr. YELLOWLEES—That seems the wonderful thing that the man, by the force of his will, could produce this.

Dr. CLARK—The reflex functions were not altogether abolished in the last two years of the disease, though they may have been before that. I tested the reflex action in the feet, and although very much diminished, they were not entirely absent. I was always under the idea that he was actuated by some delusion.

Dr. TURNBULL read his paper on,

"NOTES OF A CASE OF GENERAL PARALYSIS IN A BOY AGED 12."

The CHAIRMAN—I had a very curious experience, about two years ago, in connection with the symptoms of general paralysis. A friend came to my house very ill with typhoid fever, and while the fever lasted he simulated a typical general paralytic, both in his physical condition and mental symptoms.

Dr. YELLOWLEES—That experience is quite new to me.

Dr. IRELAND—The essential lesion of general paralysis is inflammation of the surface of the brain. It is possible that, in the Chairman's case, there may have been cerebral congestion.

The CHAIRMAN—No doubt he had congestion of the brain, but it is peculiar that he should have had the lips, tongue, speech and delusions of general paralysis, and that they should have passed away.

Dr. ROBERTSON—This case of Dr. Turnbull's reflects great credit on his observation. The patient is younger than any case I have met with, though I think, on the whole, it is correctly described as a case of general paralysis; still, it can hardly be regarded as a typical case. In an ordinary case hemiplegia is a late event, and not an early one, as in this case. Then again, his symptoms were not so characteristic as in the majority of cases, he having no grandiose delusions, although this is not a necessary symptom of general par-

alysis. The chief interest in this case is the one to which reference has been made, viz., the youth of the patient.

Dr. MACLEOD read a paper on "Chorea in Advanced Life" (see Clinical Notes and Cases.)

The CHAIRMAN—In general paralysis there is often observed a development of arachnoid cysts, with no other symptoms than those of advancing dementia.

Dr. PHILIP—I have seen what was primarily an effusion of blood into the cavity of the arachnoid become a regular cyst.

Dr. MACLEOD—It seemed to me that there had been arachnitis and an effusion into the skull cavity, and that this had got encapsuled.

Dr. PHILIP—I remember once in a post-mortem the brain was so atrophied that it presented the appearance of a sharp cone, and the skull cavity was filled with fluid. There was, however, no cyst in this case.

Dr. DODDS read a paper on "Myxœdema."

Dr. YELLOWLEES—I have a case corresponding very much to that of Dr. Dodds'. There is the reddish flush on the cheek, but the swelling does not attack the throat and tonsils.

Dr. IRELAND then read a paper on "Mirror Writing."

Correspondence.

ILLUSIONARY AND FRAUDULENT ASPECTS OF SPIRITUALISM.

Letter from Mr. STUART C. CUMBERLAND.

To the Editors of the "Journal of Mental Science."

GENTLEMEN,—The trial of Mrs. Fletcher for obtaining valuable property by alleged spiritualistic communications having attracted fresh attention to the subject of modern Spiritualism in general, I think it may not be uninteresting to your readers to know by what methods its professors, so far as my experience goes, produce their most striking manifestations. Were the explanation to resolve itself only into fraud, I should not have asked you to publish this communication in your Journal, but as either this fraud rests in great measure on mental illusion, or, when there is no fraud at all (as in private experiments), unintentional muscular and mental illusions are developed, scientifically interesting, I hope you will deem my letter suited to your pages.

A great deal has already been written about Spiritualism, both for and against, but owing to prejudice or want of experience, the so-called explanations of "spirit manifestations" furnished by some of these writers have been as absolutely incorrect as the accounts given by writers, incapable of proper discrimination, in favour of the manifestations, have been false and fraudulent. I intend treating the matter from a different standpoint than that touched upon by others; and in showing that those manifestations claimed by the spiritualists to be due to the agency of the spirits of the dead, and by others to be the outcome of some unknown physical or mental force, are accounted for on the basis of illusion or trickery, I am speaking from actual personal experience of my subject.

I shall confine myself to giving an exposition of those exhibitions of "spirit power" upon which the spiritualist principally bases his belief in communion with the dead:—

The Dark Circle is a particular form of Spiritualism, in which illusion and trickery play about equal parts. *Dark séances*—for there are two kinds, the

one differing from the other in point of conditions, though similar in respect of their manifestations—have long been popular amongst spiritualists, as well as being highly remunerative to those “physical mediums” who have presided over them.

We will first take the one introduced by those notorious mediums, Bastian and Taylor, and copied by the Fays.

The sitters are asked to form a circle round the medium, who takes a seat in the midst of the *séance* room, musical instruments, fans, paper tubes, and all the paraphernalia peculiar to such exhibitions being placed by his side. Previous to the lights being turned out the medium informs the sitters that they must join hands in order to further the process of getting up the “power,” the chain thus formed to remain unbroken during the manifestations that *may* take place.* For his part he will clap the palms of his hands together during the whole of the *séance*, in order to show that he, at least, does not aid in the production of the manifestations. The preliminaries being thus arranged, the lights are turned out. From this point the medium commences to clap his hands, whilst the sitters sing some spiritual air calculated to propitiate the “visitors from the other world.” We are repeatedly told that music materially aids the “conditions.” Be this as it may, there can be no doubt about its distinctly assisting the medium to cheat as well as to falsify the evidence of the sitters’ senses. But confiding spiritualists never seem to think of this. All the time the singing is going on one can hear the monotonous pat, pat, pat of the medium’s hands, and, even when the musical-box is wound up by some invisible agency, there is no perceptible difference in the sound. Perhaps this instrument may take an aerial flight, but still the medium’s hand-patting can be heard.

“Spirit voices” may even speak through paper tubes, and the sitters be touched by “spirit hands,” whilst some will declare they have seen “spirit lights” floating about the room or a “spirit face” hovering over the circle. All this time the rhythmical beat of the medium’s hands has been heard, convincing even to those sitters who may be sceptical as to spirit manifestations, that, no matter how otherwise they may be produced, he takes no part in them. Yet how easy it is for the most perfect judgment to be misled in the dark. In the first instance the medium deceives the sitters, and they, instead of discovering the deception, add to it by deceiving themselves. When the attention is concentrated upon any particular thing, altogether erroneous sensorial impressions are frequently created; so when the medium tells the sitters that he is going to beat his two hands together, they not only think he does so, but, on hearing *something* being patted, imagine that he is actually doing so, whereas he is doing nothing of the kind. Did the medium beat his two hands together, as he states, there would for a certainty be no manifestations, for it is he, and he alone, who produces them. Instead of the patting sound which is heard in the dark arising from the medium’s palms coming in contact with each other, as the sitters falsely think, the ingenious operator, under the cloak of darkness, coolly proceeds to beat his cheek or bared leg, or arm with one hand, and to “manifest” with the other. It will thus be readily seen that with a little practice any person, without even a spiritual gift, could manage to produce similar effects. The teeth also play an active part; with them a fan may be shook or a bell rung. Material assistance in touching the sitters and in touching the ladies’ dresses is also given by the feet. As to spirit lights, the mediums use both luminous paint and phosphorous oil; the former is not only the safest, but, being free from smell, is consequently most preferred. But it as often happens that those who claim to have seen lights are the victims of illusion. An expectant watcher seldom fails to see those phosphorescent lights so dear to his spiritualistic heart, even though the darkness

* No medium guarantees any manifestations; everything he says entirely depends upon “conditions.”

during the whole of the *séance* has not been illumined by the faintest ray of artificial or spiritual light. Let the reader, anxious to judge how readily the sense of sight or hearing may be perverted by the concentration of attention go to a dark *séance*, and, whilst there, declare that he sees a light to the left of the room, and immediately he will find several of the sitters declaring that they see it too. Let him say it now moves to the right, diminishing in size as it passes along, and forthwith he will have them agreeing with him, though all the time their sense of vision is being deceived by an unreal image. I have repeatedly by these means convinced myself of the utter unreliability of the sight of most of the sitters who attend spirit *séances*. Their sense of hearing, moreover, is not any more acute. It is almost impossible for any one to tell in the dark where sound comes from and who causes it. Let the attention of the sitters be concentrated upon the table, and let the medium knock on the floor, and I question if you would find one amongst them who would not aver that the table, instead of the floor, had been rapped. I on one occasion purposely rapped the table leg during a dark *séance*, and immediately some one declared it was "Peter" (a notorious spirit) who had rapped, whilst another averred it was "Ebenezer," a third being equally certain it was "Irresistible;" but the medium, who knew the merits of his "spirits" far too well, not having produced the raps himself, was, of course, convinced that the sound had been produced intentionally or otherwise by one of the sitters, so he declared that it must have been an "evil spirit," who had fought his way into the circle. Immediately the champion of "Peter" began to waver, and sitter No. 2 thought it could hardly have been "Ebenezer," though he had been confident about it; and sitter No. 3 at once came to the conclusion that "Irresistible" never rapped like that, and that it must have been an "evil spirit." The alien spirit theory was therefore accepted without a dissentient voice.

The other Dark Circle, as I have already said, differs only in the matter of its conditions. Instead of the medium sitting inside a circle formed by the sitters, he takes a seat with them at a large round table. The hands of all are laid flat on the surface of the table, each sitter linking the little finger of each hand with those of his neighbours. In the same manner the medium may be placed between two sceptics determined to detect, as far as possible, his *modus operandi*. On no account are the sitters to let go of hands, as the power would in such case, says the medium, be considerably affected, if not altogether destroyed. This being understood, the lights are blown out. Perhaps in the midst of the singing, which has been resorted to in order to get up the power, a "spirit" will proclaim his presence by loudly rapping on the table. It may be "Peter," "Ebenezer," or "John King," or some other controlling spirit, but which it is soon ascertained by the "spirit" speaking for himself. A sepulchral voice would denote the presence of "Ebenezer" or "Irresistible," whilst a voice, pitched in a squeaky, unmusical key, would do duty for "Peter," as a gruff, full tone would proclaim the visit of "John King." Perhaps it turns out to be Peter—for he is generally the "spirit" first to manifest—and he immediately sets to work to wind up the musical-box. A bell may now be rung, and some one may be fanned or have his head beaten with a paper tube. By-and-bye a scattering sound is heard, and the odour of flowers fills the room, and at the same time the musical-box makes a circuit of the room. All this time the circle is supposed to be unbroken, and the sceptics who are holding the medium, and who really should be able to judge, emphatically declare that he is being held by them. These manifestations puerile though the majority of them are, and altogether unlike what one might expect from a genuine spirit who took the trouble to return to this earth, are calculated to awaken feelings of nervousness and alarm amongst the more timid of the sitters. During this emotional excitement they not only feel and hear spirits, but actually see them, though, of course, their senses are being deceived the whole of the time. Let a sitter in the dark touch another who

believes that the spirit of his mother visits him in *séances*, and he will perceive how readily the understandings of this person can be imposed upon. With every touch the man will be found to exclaim, "Thank you, dear mother," or speak in some such tone of endearment. It is a familiar fact that those who attend *séances* with the belief that manifestations from the spirit world are possible are, when under the influence of concentrated attention, liable to have not only their senses deceived, but their understandings imposed upon. Nervous and susceptible people are readily impressed by the nonsense talked by the mediums, and should they be told that "John King" would carry the musical box round the room and pass it through the wall, they would recognise in the box swung in the medium's hand a positive proof of its aerial flight; and in the muffled sounds, caused by the medium *sitting upon the box*, there would be an undeniable instance of the musical instrument having passed out of the room to play there.

A medium knows very well the great advantage to be gained by darkness or uncertain light, and at orthodox dark *séances* he can cheat, provided all sitters abide by the conditions imposed, with perfect impunity. That the medium, though apparently firmly held, does get his hands loose, must, in order for there to be any manifestations at all, be patent to any one who disbelieves in spiritualism; but the manner in which he effects this so as to create a false sensorial impression with the sitters who hold him is to them completely puzzling. Yet it is all managed in the following simple manner:—

The medium, as I have said, takes his seat at the table between two persons who claim to be sceptics. He, however, when he can, takes care to select those most calculated to be imposed upon, and in no case, for obvious reasons, are those selected who wear rings. The lights, we will say, have been turned out, the medium's little fingers being linked in with those of his neighbours. The first step this individual takes towards accomplishing his object is to indulge in a fit of shivering, said by him to be indicative of spirit presence, by which means all four hands are brought close together. He now very gently raises the *little finger of his right hand*, but, instead of replacing it, he puts in its place the *fore finger of his left hand*. The change is altogether imperceptible to the sitter, and his surprise is as great as the rest in the circle when his right hand, thus free, proceeds to manifest. With it bells may be rung, the musical-box wound up, the sitters fanned, touched, or otherwise bewildered. He may even take out of his pocket the mask of a spirit face nicely coated with luminous paint and float it in the air by means of lazy tongs, and with the said lazy tongs twitch the ladies' dresses or purloin their handkerchiefs. There are no end of manifestations to be done with one hand; but in order to get at a cupboard for the flowers, or any other part of the room for some other spiritual purpose, he must get both his hands free, and this he manages in this way:—Further nervous twitchings of his left arm bring the three hands still closer together, the little fingers of the sitters being on the verge of touching. Now is the time, and a violent lurch of the table breaks the chain of hands, and in that moment he has snatched away his left hand, whilst the sceptics, feeling each other's little fingers, settle down with the firm conviction that they are retaining hold of the medium, who is really free to, in case no one strikes a light to stop his little game, manifest after the peculiar fashion of "visitors from the other world." Having "manifested," he returns to his seat, and, after jolting the table with sufficient force to once more break the chain, he quietly replaces his own hands and regains his original position. The lights may then be struck, and the *séance* declared over.

Mediums are seldom, if ever, searched at dark *séances*, and, as will be seen, they have only to free their hands in the manner described, and to take from their person any spiritualistic trappings that may have been secreted there.

We hear much about flowers brought straight from spirit-land, and wet with heavenly dew, being introduced at such circles. There are numerous ways of

hiding such flowers, which are generally introduced by lady mediums. They may, if the medium is not searched, be secreted in her dress; if, however, she be searched, a confederate may introduce them, or they may, as has often been the case, be contained in the lining of an opera cloak thrown over the "dear medium's" shoulders to keep her warm. A friendly water bottle supplies the "heaven-born dew." By a very simple chemical experiment, Mrs. Guppy-Volckman, it will be remembered, was convicted of having obtained the so-called heavenly dew from a bottle containing not the purest pump water. A famous test introduced at dark *séances* is that of passing a ring over a sitter's arm, in proof of the de-materialisation theory. As the sitter is holding the medium's hand when the manifestation takes place, the spiritualists declare that either the ring, on getting on to his arm, must have been de-materialised, or that a passage must have been made in the arm to allow of the ring passing through. I have seen a great deal of this de-materialisation nonsense, and can only wonder that sane people should be so easily gulled into accepting as evidence of spirit power what is either a simple trick or the result of false sensorial impressions.

We will take the case of the ring. All that the medium has to do is, having got his hand free in the manner described, to take up the ring, passing it over his own arm, and having regained his hold of the sitter's hand, asks him to grasp his hand firmly, in order, he adds, to avoid trickery, and, as a natural consequence, the ring comes sliding down to the sitter's arm, who is confident that he never for one moment let go his grasp.

There are other manifestations produced at dark circles, but for the most part they are even more trivial than those I have enumerated, which are the principal ones to be witnessed, and those upon which the thorough-going spiritualist would appear to chiefly base his belief in the existence of spirit power.

The Power of Attraction has ever been a very important feature at spirit *séances*. Before the Dialectical Society much evidence was adduced in support of the theory, the Earl of Crawford and Balcarres (then the Master of Lindsay) being amongst those who claimed to have witnessed the phenomenon. By the "power of attraction" is meant the power possessed by "mediums" of causing, without material contact, inanimate objects, such as books, chairs, tables, and other articles of furniture to move towards them or to otherwise displace themselves. This peculiar gift would appear to have been possessed by Mr. Home and Dr. Monck in a degree of perfection higher than that attained by other famous physical mediums; that is to say, the phenomena in connection with it were oftener produced through their mediumship than that of others. All of us who have given the subject of spiritualism any study are acquainted with the particulars of the *séance* Sir David Brewster had with Mr. Home at Cox's Hotel, Jermyn Street, in which the alleged "power of attraction" played so important a part. Sir David denounced the pretensions of this medium in the most emphatic manner; but beyond stating that the bell, accordian, &c., which had been put *under* the table were not conveyed into his or Lord Brougham's hands (his lordship was present at this sitting) by spiritual agency, but simply *placed* there, he offered no practical explanation of the mode adopted by Mr. Home in placing them there. That the medium did place them there himself, and that spirit power had nothing whatever to do with the matter, I have not the slightest doubt. Mr. Home in all probability adopted on this particular occasion the same means for performing the trick as employed by him on other occasions. His *modus operandi* was simplicity itself.

It is, we will say, a light *séance*, and the company is seated round a table, underneath which a bell has been placed. One of the "circle" is requested to hold his hand beneath the heavy hanging table-cloth and under the table in case a spirit should desire to manifest. In the meantime a conversation upon

some indifferent topic is struck up among the sitters, in the course of which the sitter, who has been holding out his hand, suddenly cries out that the bell has been conveyed to him. Now, the whole of the time the hands of the medium have been full in sight of all, and this naturally puzzles the sceptics, who hastily look underneath the table, thinking, perhaps, to find there an explanation of the curious affair.

The medium may afterwards suggest that the sitter hold the bell under the table to see if there is spirit power enough to attract it from the grasp. In the midst of a further conversation—or, may be, music—which now engages the attention of the “circle,” the sitter who has been holding the bell cries out that it has left his hand, and a moment later it is seen hurled across the room behind the medium. Once more the sceptics make an examination, only to be baffled. Of course, they say the medium could not have done the trick, for his hands were in sight the whole of the time, and the sitter is himself above the suspicion of confederacy.

True it is that the medium’s hands are in sight during the sitting, and that the “manifestation,” no matter how otherwise brought about, is not produced by them, but the sitters somehow never think of the operator’s feet; yet it is with them, and them alone, that he performs the trick. A medium, when giving *séances* of this kind, invariably wears very loose shoes, which can be readily slipped on and off. His socks are minus half the foot, which enables him to have full play with his toes in manipulating musical and other instruments. It will thus be seen that all that the medium has to do when the attention of the “circle” is otherwise attracted is to slip off his shoe and lift the bell up into the sitter’s hand, hastily slipping his foot back into his shoe so soon as this is done. In a like manner he regains the bell, and to throw it from him with considerable force is a very easy task. Perhaps not only will the sitter declare he has been touched by a “spirit hand,” but some of those near him will aver that they actually caught a glimpse of one. Expectant attention will readily explain how easily persons, having faith in spirits, would recognise in the top of a naked foot a spirit hand. More than half the so-called spirit hands are neither more nor less than naked feet, whilst the remainder are stuffed gloves or dexterously manipulated models. But of this more anon.

In other instances the “power of attraction” is brought about by the use of thread or fine wire. It was a very favourite practice with both Home and Monck, and not infrequently with Slade, to cause books, albums, small musical boxes, and so forth to move across the table, in full view of the sitters, towards them. In a dim light, and whilst you are holding the medium’s hands to prove that he does not assist in the production of the manifestation, to see a musical-box gliding in slow, ghostly fashion over the surface of the table is productive of curiosity, if not alarm. But, like all good tricks, its chief merit is in its simplicity. All that is required to work the manifestation is a piece of silk thread, and it is worked in the following way:—

Previous to taking his seat at the table the medium has secreted about his person a thread of fine black silk, to each end of which is fixed a small hook. One end is hooked into the boot or sock of, we will say, his left leg, and the other in his trousers towards the fork. Thus armed, he is quite ready for action. Whilst at the table the left leg is thrown across his knee, and under the pretence of winding up the small musical-box he fastens the hook which had been attached to his trousers to that instrument. The light is too dim for any one to discern the thread, and as the manifestation, when it comes, comes quite unexpectedly, little or no opportunity is afforded those who abide by the conditions to discover the working of the trick. Perhaps in the midst of a hymn chanted by the sitters the table manipulated by the medium or a confederate is felt to tip violently—a sure sign of spirit presence. On the vibration ceasing the medium, who is firmly held by the sitters on

each side of him, commences to shiver under the possession of the spirit, and a moment later the musical-box commences to glide towards him, finally disappearing in his lap. As will be readily seen, all that he has done has been to slide his leg, to which is attached one end of the thread, off his knee, and with it, as a matter of course, bring the musical-box after him.

When "Dr." Monck made his hasty flight from Huddersfield a large quantity of thread and fine wire was discovered amongst his spiritualistic properties left behind him.

Chairs are further "attracted" to tables, to which we so often hear that they "come up with a sudden rush," by the use of the medium's legs. Several mediums are in possession of remarkably elastic frames, which enable them to produce physical manifestations beyond the power of more ordinary individuals, who may even know how these manifestations are produced. This was particularly noticeable in the case of Home and Slade, the former owing his extraordinary contractions and elongations, of which we hear so much, to this elasticity of frame instead of to supernatural power.

It is well known that by an imperceptible flexion of the joints and curving of the back, and an equally inappreciable extension, a man may very readily vary his height several inches.

With "Dr." Slade the elasticity of his frame was employed for the purpose of attracting chairs or otherwise agitating articles of furniture at a distance. Whilst engaged in conversation with this medium a chair, some two or three feet from the table, and directly opposite to him, would be thrown violently on the ground, to the consternation of the sitter or sitters.*

In order to accomplish this, "Dr." Slade, having made his *temps*, after the manner of an expert conjuror, by attracting the sitters' attention away from the object he had in view, would imperceptibly stretch out one of his legs—which were of extraordinary length—and so reach the chair, which is either overthrown or drawn up suddenly to the table with that spiritual "rush" already referred to.

I once knew a gifted individual who claimed to have established with a table a connection of the most extraordinary character. This table, he stated, would at his will follow him round the room like a dog, waltz amongst the chairs and sofa, or indulge in other eccentricities little to be expected of so undemonstrative a piece of furniture. I must confess to have been from the first very sceptical about the matter, and was anxious to test the reality of this person's claims to supernatural power. In due course I was granted a *séance*. I was allowed to examine the table, which, with the exception of being very slightly built, differed in no way from ordinary small tables. Certainly I could discover no trick in it. I was asked to take a seat at one end of the room whilst the "medium" went to the table to get up the "power." The "power" was speedily raised, and the table commenced to wobble, and on the medium walking about the room it began to follow him at a respectful distance, stopping and nodding when he stopped, recommencing to walk when he did. In such an exhibition a great many confiding spiritualists, unversed in the tricks of the trade, would doubtless have recognised a glorious proof of spirit power instead of seeing, as I did, and as I think any common-sense man would have done, that the thing was a trick, and a very simple one in the bargain.

The gifted being who performed the experiment, and whose surprise and chagrin at my discovering his *modus operandi* was intense, simply used a fine silk thread, with a bent pin at each end, for the purpose. Whilst under the pretence of getting up the "power" he connected one end of the thread to the table, and the other was hooked into the sleeve of his coat. As a natural consequence the table, which was on castors, followed him at every step.

* It was a rule with Slade never to have more than two or three sitters at a time; the reason for this is obvious.

I have never yet—and I altogether question whether any one else has—seen any substantial object attracted towards the medium otherwise than by material means, of which those I have cited are the principal ones employed.

Sometimes, however, it is alleged that the attraction is upwards, and we have, amongst very many others, men of position and undoubted intelligence, like Dr. Lockhart Robertson and Mr. S. C. Hall, solemnly attesting the reality of such phenomena. In the course of a very simple experiment I conclusively proved, in the presence of many witnesses, how easily the evidence of Mr. Hall's senses could be falsified. I am, therefore, from the liability which this gentleman's senses are to falsification, not inclined to place much reliance on his testimony in matters appertaining to spiritualism. With Dr. Robertson, however, all this may be different, and I should be only too happy to have an opportunity of knowing from himself the phenomena he witnessed, the tests he employed, and of ascertaining whether the explanations I am able to offer do or do not explain everything.

Undoubtedly tables have gone upwards, but never, so far as my experience and that of my friends, who are best calculated to judge of such matters, without material contact.

There are various other points to which I should like to refer, but will, with your permission, postpone them to a future letter.

Yours, &c.,

STUART C. CUMBERLAND.

A PATIENT'S REFLECTIONS ON AN ASYLUM MURDER.

Govan Poorhouse, Glasgow.—Murder.

Royal Asylum, Edinburgh,
May 7th, 1881.

DR. CLOUSTON: DEAR SIR,—With your permission I shall make some observations and reflections upon the above. A murder was committed in the lunatic department of the poorhouse at Govan, in the suburbs of Glasgow, some time about the close of the last and the beginning of the present year, a murder which I venture to characterise as one of the most heinous and aggravated nature.

A poor young man, in a low condition of bodily health, and at the same time suffering from mental disorder assuming the form of acute mania or delirium, was then and there brutally murdered.

From the nature of the affliction under which he laboured the patient was entirely irresponsible for anything he might think, say, or do; indeed, was for the time being in a world of spectres and unrealities, his dearest friends becoming, then, strange to his eyes and objects of suspicion, aversion, or terror. What is the course usually adopted in institutions for the insane in the case of a patient suffering from this species of malady? He is put into a warm bedroom, having its walls and floor padded with a strong but soft elastic material, so that in the paroxysms of the malady, should he fall, he will not be injured, or should he aim a blow at some dread foe of his feverish and morbid imagination, the stroke will fall as harmlessly as that of a snowball when impinged against a wall.

The Lunatic Department at Govan Poorhouse seems to have been possessed of no such indispensable requisite of asylum treatment, and if so, why so? Surely here is a matter requiring the urgent attention of the Lunacy Board. It is not too late, in view of another possible murder there or elsewhere. Where there is such a padded room there is no need for attendants, whose presence in such a case as the one referred to is more likely rather to have a disturbing than a soothing influence on the patient. The operations of the healing Mother

Nature under the presence of acute mental suffering like that referred to are best carried on in darkness and silence, just as in the bowels of the earth the diamond is formed from coal, under a pressure of a force whose strength can hardly be computed, and in which fire, emblematic of suffering, is the chief, if not the only element.

Instead of a padded room, however, the patient was consigned—at least, during the night—to the care of two attendants. No official eye was watching them—only the eye all-seeing of Him who slumbers not nor sleeps, and who takes cognizance of the hidden things of darkness; no sweet friendly voice was there to throw its hallowed infusion into the too sensitive ear of the poor delirious one on what proved to be his bed of death, but the rough, coarse, and often blasphemous expressions of ignorant hinds; no kind hand to soothe the burning, fevered brow, but one ready to smite with a blow, to twist, to tear; no knee on which to rest the anguished head, but one to crush and bruise without leaving any outward mark; no warm heart gently leaning in prayerful affection on the weary breast, but the whole weight of the bodies of these most inhumane attendants falling upon him to injure him beyond the possibility of recovery.

What a blessed release when the sufferer was discharged, not from the asylum, as he might and ought to have been, cured of his merely temporary malady, but from a world where men with natures depraved beyond conception so greatly abound.

The case was tried at the Circuit Court, Glasgow, the Lord Justice Clerk Moncreiff being judge. A witness for the prosecution, who had been insane, testified, in language clear and precise, as to what he had seen or heard with reference to the murder, and the judge remarked with regard to this witness, and as if deprecating his testimony, that it was the first case within his experience as a practitioner at the bar and judge on the bench where the evidence of one who had been a lunatic was employed. I may be allowed to refresh the memory of the too forgetful judge, and to say that in the case of "*The Crown versus Wormald*," a trial which took place in the Court of Justiciary, Edinburgh, not quite four years ago, the Lord Justice General Inglis presiding, a Mr. Andrew Donaldson, who had been a lunatic, was a witness; and also in a case tried before Sheriff Campion, only a few weeks ago, a person who was at the time—not merely had been—a lunatic was examined, and on his testimony the accused was found guilty and fined. To this Sheriff belongs the honour, so far as I am aware, of condemning a man on the testimony of a lunatic, and chiefly, if not altogether, on his testimony alone. For this step in the right direction he is deserving of the warmest thanks of all the virtuous and thoughtful portion of the community who are inmates of asylums. Vulgar prejudices are gradually dying out, and will at last become extinct. Comparatively few of the insane are so far gone, even when at their worst, that some ray of reason does not break forth from their darkened mind, while by far the largest proportion know right from wrong and good from evil, and are as well, if not better, qualified than ordinary people, from the very regulating, tempering, and sharpening of their mental and moral powers, caused by the heat of the fire of affliction which they have passed through, to judge in any given circumstances, and to give the naked, unbiassed truth when called on as witnesses.

David Kinnear, head attendant, said of the witness above mentioned that he did not give his story—story is the word employed by vulgar and even by cultured prejudice to designate any statement of facts made by a lunatic—till his discharge from the lunatic wards. This shows he was not devoid of caution, though courage was lacking. Had he, when under the supervision of the officials of the Lunatic Department, divulged what he saw or heard, he would most probably, if not certainly, have been made to suffer in person and in board.

With regard to Mr. Guthrie Smith, counsel for the prisoners, he, too, like his chief, seemed to be ignorant of the case of "*The Crown v. Wormald*" and of Sheriff Campion's proceedings, and too much assured of the strength of the case to act upon the wise saying, "leave no stone unturned." He did not bring forward a witness for the defence, on the ground of his insanity. If the testimony he declined was worth hearing in the course of preconviction, it was worth

stating, and it would have been judged on its merits. This witness was very likely a lickspittle of the murderers. He was probably of a low mental type, one whose sense of right and wrong was confused, and his view of the turpitude of certain actions by no means clear and well defined. In a word, he was most likely one of the easy-going, harmless class who has never been subjected to harsh treatment, since it has been his lot, perhaps, to do nothing to rouse the ire and bring himself under the oppression or remorseless attacks of those in power.

The Lord Justice Clerk commended Mr. Guthrie Smith as one who had acted wisely. We might ask if it is wise to leave a witness out of account, though insane, especially one said to be for the defence. Sheriff Campion's view of wisdom in this connection is antipodal to Lord Moncreiff's, and if one is right the other must be wrong.

It was said in defence that the attendants did not intend to kill the patient. It is a matter of less moment to know what they intended than what they did. They killed him inch by inch by breaking rib after rib of his body till twelve ribs were broken. Twelve "bony" witnesses these, that speak with no dubiety as to their intentions. It was not an iron image of a man they were operating upon, but one of flesh and blood like themselves, and to say that they did not intend murdering the patient—at least, that they had any particular concern whether they did so or not—is contrary to reason and common sense.

The jury came to the decision that the attendants were guilty of a gross assault, and recommended one of the two to the leniency of the Court. The Judge, in passing sentence, seemed to have left this recommendation of the jury entirely out of account, and sentenced each of them to three months' imprisonment. Thirteen weeks had been passed by them in prison previous to the trial.

In asylums no two attendants are on an exact equality, and in this murder the principal of the two, as the mainspring of the proceedings, must have been the more guilty of the two.

Next to the loss of character there is, perhaps, no evil that can overtake a man so great as insanity, for, independent of the suffering it brings along with it, the stigma of being, or having been insane is not very easily borne.

The City of Glasgow Bank Directors—men who certainly not willingly, but by the force of an overpowering tide of circumstances, were led to commit reprehensible actions in finance—were sentenced, several of them to eight months and two of them to eighteen months' imprisonment, while men appointed and paid for taking care of a poor lunatic, and who, by their most unjustifiable and cruel treatment, cause his death, are sentenced to three months' imprisonment only. This certainly does not look like even-handed justice. Mercy is the noblest attribute of the Almighty, and judgment mingled with mercy is the principle on which men should act in dispensing justice to their fellow men; yet, as there is hardly a day in which harshness and over-severity in one form or another are not practised in asylums for the insane, it seems to us that these things will rather be increased than diminished by a judgment like that of the Lord Justice Clerk in cases such as this which at present has been brought under our notice.

I am, dear Sir,
Yours obediently,
J. T.

MISLEADING EXAMPLE IN THE CENSUS SCHEDULES.

The following has appeared in *The Scotsman*:—

"Stirling, April 2, 1881.

"SIR—It is much to be regretted that in the directions for filling in the census paper one of the examples given on the back of the schedule will lead people to make returns which must lessen the value of the results. Householders are asked to state if any member of their family be deaf or dumb, blind, an imbecile

or idiot, or a lunatic. One would think that in these latter definitions it was desired to bring out the distinction between idiocy and insanity. The word imbecile or idiot is, by medical men at least, always used to signify those who suffer from mental deficiency resulting from disease or malnutrition of the brain, occurring either before birth or in early childhood; and one who becomes fatuous from the degenerative changes of old age, or disease occurring after the years of childhood are past, is, in medical language, a 'dement' or demented, and classed under the head of lunacy. The example given in the schedule is as follows:—'Ellen Douglas, mother, widow, age 71, annuitant, born in Canada, imbecile.' Setting aside the question whether an imbecile can legally hold an annuity, most people would conclude that Mrs. Ellen Douglas must have lost her mental faculties after being married. In that case this unfortunate lady ought to have been returned as a lunatic, not an imbecile. Hundreds of householders will thus be induced to use the word 'imbecile' for their lunatic relations, all the more so that it seems a milder or less disagreeable term. It is true that in the schedules people are expected to state whether those returned as imbecile or idiotic are so from birth; but then a large number of idiots and imbeciles have been born apparently healthy, and have become imbecile or idiotic, from diseases of the nervous system after birth. The broad distinction between imbeciles or idiots and lunatics is confounded and lost by this unfortunate example. There is no doubt that our statistics of lunacy will thus be of inferior exactness, and not comparable to those of other countries, where the distinction between idiocy and insanity is properly made in the census.

"I am, &c.,

"WILLIAM W. IRELAND."

ON THE ADVANTAGES OF TOUGHENED GLASS FOR ASYLUM WINDOWS.

Borough Asylum, Gosforth,
Newcastle-on-Tyne.

SIR—With reference to your letter to the clerk of the asylum requesting him to inform you if the toughened window glass has given satisfaction here, I have to inform you that it has gradually been substituted for ordinary window glass here, since the 1st of February, 1877, and that I have every reason to be satisfied with it. The cost is about five times that of ordinary glass, but in the four years which it has been in use, it has more than repaid the first outlay, and only one half of the quantity ordered at that date has been used; in addition to its being in the end more economical, it has the advantage that when a pane is broken, which happens occasionally when a good deal of violence is exhibited, the fractured pieces have blunt edges and thus many injuries are avoided.

I am, your obedient servant,

R. H. B. WICKHAM, F.R.C.S.,
Medical Superintendent.

The glass is to be obtained of Messrs. Gardner, 453, Strand, London. The measure of the windows has to be sent, and after a few weeks a supply of panes is sent. At Bethlem we have ordered a supply, and in the course of a very short time we shall be glad to show the result of the trial.

GEO. H. SAVAGE.

INTERNATIONAL MEDICAL CONGRESS.

As a paper is expected from the Superintendent of Gheel it is to be hoped that those among our countrymen who have paid most attention to the more recent developments of the non restraint system, will not only attend but will also contribute plans of their detached houses, and such other home-like or village modes of grouping and treating the insane.

INTERNATIONAL EXHIBITION.

In connexion with the International Medical and Sanitary Exhibition which is to be held in London, before the meeting of the Medical Congress, it is hoped that our speciality will be well represented. Any improvements or modifications of rooms, beds, dresses or appliances, will be welcomed. It is not yet decided whether in section viii of the Congress a special exhibition at Bethlem Hospital should take place or not. It will depend, to a great extent, on the way in which members respond to the invitation to send novelties.

Obituary.

ISAAC RAY, M.D., LL.D.

With deep regret we record in this Journal the death of a distinguished alienist, an ornament to our special branch of the Profession, and the Nestor of Medical Psychology in the United States of America.

With Dr. Ray dies a vast mass of material stored up in a mind, acute in its perceptive powers, and quick to seize the relation of facts to principles. Indeed the swiftness with which he saw fallacies rendered him a little impatient of the detailed examination of questions in which truth and error were intimately blended.

“He commenced his literary education at Phillip’s Academy, Andover, and afterwards entered Bowdon College, where he prosecuted his studies till 1824, when he was compelled to leave on account of ill health. Soon after leaving college, when his health had sufficiently improved, he commenced the study of medicine, passing a portion of the time in the office of Dr. Shattuck, a distinguished physician of Boston, and graduated at the medical department of Harvard University in 1827, in which year he began practice in the City of Portland, Maine, and he here married in 1831 Miss Frothingham, who survives him.

“Two years after commencing practice inducements were offered to him to remove to Eastport, in the same State, in which place he soon after fixed his residence. It was in Eastport that Dr. Ray’s attention was first directed to the subject of insanity.

“In 1841 he was appointed Medical Superintendent of the Maine Hospital for the Insane, at Augusta, which position he held till he was invited by the authorities of the Butler Hospital, at Providence, R.I., to become superintendent of that institution—which was just then being organised—and to supervise its erection. No one has done more to secure the proper organisation of American hospitals for the insane.

“Dr Ray was led to accept this position especially from the fact that that hospital was to be the offspring of private munificence, and was to be controlled by men above all suspicion of political or selfish interest in reference to it. Beyond this, he was here offered an opportunity to introduce into the construction of the buildings and into the subsequent management of the institution his well matured views on all these subjects.”—*Philadelphia Medical Times.*

Before commencing his duties Dr. Ray visited Europe, and if he often recurred to his visit to England with pleasure, those who formed his acquaintance in this country were not less delighted with his sterling worth, intelligence, sincerity, and the peculiar charm of his conversation when at ease. We recall what may seem too trivial to mention; but it illustrates the lasting impression he produced that a remark of his at the table of the house he made his home at York, is still remembered, as well as the particular tone in which he said it *à propos* of the subject at the moment discussed, “The nervous system,” said he, “is an instrument on which we know not yet half the airs that may be played.” His friend, Dr. Kirkbride, writes to us “It was necessary to know Dr. Ray intimately to appreciate him properly, and many who met him only in public

life had no conception of the charms that belonged to his social intercourse with those to whom he gave his friendship and confidence."

Dr. Ray's best known work, which appeared in 1839, has deservedly retained the first place among works in the English tongue on the medical jurisprudence of insanity. The fifth edition was reviewed in this Journal in 1872, and we believe a more recent one has appeared. We should have been glad to see one still further enriched by his mature experience and with some points more fully worked out. In his contributions to *Mental Pathology*, published in 1873, we have the principal papers which he had contributed to *Mental Science*, collected together up to that date, and a valuable selection it is. There have been many communications to the medical journals since from his pen which ought to be religiously preserved and presented in an accessible form to the public. Dr. Ray's life-work was done, properly speaking, in the twenty three years during which he laboured at the Butler Hospital, and in death he has, it is said, not forgotten to bequeath a handsome sum to this hospital.

"He continued to fill the office till January 1867, when, to the great regret of the authorities of the hospital and of all in any way interested in its welfare, he felt impelled by a conviction that his health recommended a change of climate and occupation, to resign the position which he had held so acceptably to all, and with such equal advantage to the afflicted for more than 22 years."*

It is more than probable that Dr. Ray might have been longer spared to his friends and the profession had he not lost, about a year ago, his only son, a physician. His letters from that time were mostly sorrowful, but not querulous, and show how deeply he felt the loss of one on whom he had, in a sense, centred all his hopes in the future, and without whom he felt as if life was hardly worth living. He expressed himself to the writer as paralysed, and it was too true that listening to "the closing door," his life "was darkened in the brain," perfectly clear though his mind remained to the last.

Born at Beverly, Massachusetts, he died at Philadelphia, where he had lived many years, honoured and beloved. His end came on the last day of March at the age of 74. And so the sorrow-chastened veteran passed quietly away "into that still country," to use the language of Carlyle, "where the hailstones and fire storms do not reach and the heaviest laden way-farer at last lays down his load."

D. H. T.

JAMES SHERLOCK, M.D., M.R.C.P.

Dr. Sherlock, the Medical Superintendent of the Worcester City and County Asylum, died May 13, aged 53, after occupying his post, with the greatest satisfaction to the Committee, for twenty-seven years. He was a pupil of Dr. Skae, of Edinburgh and was at one time Superintendent of James Murray's Asylum at Perth. His loss is greatly deplored.

On May 10th he was seized with acute hepatic congestion; the base of the right lung subsequently became involved, and then both lungs.

The Committee of Visitors in passing a resolution expressing their deep sorrow at the irreparable loss they and the County and City of Worcester have sustained, observe:—"Gifted with peculiar talents for the branch of the profession he embraced, Dr. Sherlock possessed a combination of powers seldom united in the same person. With a singularly correct insight into the various distinctions of peculiarities of mental aberration, and with much administrative ability and firmness of purpose, were associated exceeding kindness of heart and disposition and the greatest suavity of manner, ensuring not only the confidence but the affection of all around him. By the visitors, attendants, and patients his qualities were highly appreciated, and his death painfully lamented."

* "Philadelphia Medical Times," April 23, 1881.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

The Annual Meeting of the Medico-Psychological Association will be held at University College, London (by permission of the Council), on Tuesday, August 2nd, under the Presidency of Dr. D. Hack Tuke.

The afternoon meeting will separate in time to allow of members being present at the Informal Reception of the Congress at the College of Physicians.

Dinner at the Freemason's Tavern at 7.30.

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Appointments.

COOKE, EDWARD MARRIOTT, M.B., M.R.C.S. Eng. (of the Wilts Asylum), to be Medical Superintendent of the Worcester County Asylum.

DODDS, W. J., M.D., D.Sc., to be Assistant Medical Officer to the Birmingham Borough Asylum.

GRIFFITH, J. DE B., M.B., M.Ch., to be Resident Medical Officer of the Yarra Bend Lunatic Asylum, Melbourne.

MIDDLETON, W. H., L.K.Q.C.P.I., L.R.C.S.I., to be Visiting and Consulting Physician to the Mullingar Lunatic Asylum.

PATTON, W. J., B.A., M.B., L.R.C.S.I., to be Assistant Medical Officer to the Three Counties Asylum, *vice* Dr. J. S. Buck, deceased.

THOMPSON, A., M.B., C.M., to be Assistant Medical Officer, to the Montrose Royal Lunatic Asylum.

WALMESLEY, F. H., M.D., to be Senior Assistant Medical Officer to the Metropolitan Asylum, Leavesden.

Erratum.

In the present number, p. 500, l. 10, for "Was large, with arachnoid cysts," read "Was large arachnoid cysts."

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PART 1.—ORIGINAL ARTICLES.

*Presidential Address, delivered at the Annual Meeting of the Medico - Psychological Association, held at University College, London, August 2nd, 1881. By D. HACK TUKE, M.D., F.R.C.P.**

1841.—1881.

If, gentlemen, History be correctly defined as Philosophy teaching by examples, I do not know that I could take any subject for my Address more profitable or fitting than the Progress of Psychological Medicine during the forty years which, expiring to-day, mark the life of the Association over which I have, thanks to your suffrages, the honour to preside this year—an honour enhanced by the special circumstances attending the period at which we assemble, arising out of the meeting of the International Medical Congress in this Metropolis. To it I would accord a hearty welcome, speaking on behalf of this Association, which numbers amongst its honorary members so many distinguished alienists, American and European. Bounded by the limits of our four seas, we are in danger of overlooking the merits of those who live and work beyond them. I recall the observation of Arnold of Rugby, that if we were not a very active people, our disunion from the Continent would make us nearly as bad as the Chinese. "Foreigners say," he goes on to remark, "that our insular situation cramps and narrows our minds. And this is not mere nonsense either. What is wanted is a deep knowledge of, and sympathy with, the European character and institutions, and then there would be a hope that we might each impart to the other that in which we are superior."

* As on timing the length of his Address, the writer found it would occupy nearer two hours than one, nothing remained for him but to reduce its proportions in its delivery, and to ask permission to take the remainder as read.

Do we not owe to France the classic works of Pinel and of Esquirol—justly styled the Hippocrates of Psychological Medicine—works whose value time can never destroy; and have not these masters in Medical Psychology been followed by an array of brilliant names familiar to us as household words, Georget, Bayle, Ferrus, Foville, Leuret, Falret, Voisin, Trélat, Parchappe, Morel, Marcé, who have passed away,* and by those now living who, either inheriting their name or worthy of their fame, will be inscribed on the long roll of celebrated psychologists of which that country can boast.

If Haslam may seem to have stumbled upon General Paralysis, we may well accord to French alienists the merit of having really discovered the disorder which, in our department, is the most fascinating, as it has formed the most prominent object of research, during the last forty years.

To mention Austria and Germany, is to recall Langermann, Feuchtersleben, Reil, Friedreich, Jacobi, Zeller, Griesinger, Roller, and Flemming, who, full of years and honours, has now passed away.

Has not Belgium her Guislain—Holland her Schroeder van der Kolk, and Italy her Chiaruggi?

And when I pass from Europe to the American Continent, many well-known names arise, at whose head stands the celebrated Dr. Rush. Bell and Brigham will be long remembered, and now, alas! I have to include among the dead, an honoured name, over whom the grave has recently closed. Saintship is not the exclusive property of the Church. Medicine has also her calendar. Not a few physicians of the mind have deserved to be canonized; and to our psychological Hagiology I would now add the name of Isaac Ray. With his fellow-workers in the same field, among whom are men not less honoured, I would venture to express the sympathy of this Association in the loss they have sustained. Nor can I pass from these names, although departing from my intention of mentioning only the dead, without paying a tribute of respect to that remarkable woman, Miss Dix, who has a claim to the gratitude of mankind for having consecrated the best years of her varied life to the fearless advocacy of the cause of the insane, and to whose exertions not a few of the institutions for their care and treatment in the States owe their origin.

* I here do homage to the dead. Calmeil, Baillarger and Brierre de Boismont still live at an advanced age.

Abroad, psychological journalism has been in advance of ours.

The French alienists established their *Annales Médico-Psychologiques* in 1843 (one of whose editors, M. Foville, is with us to-day), five years before Dr. Winslow issued his *Journal*, the first devoted to medical psychology in this country, and ten years before our own *Journal* appeared, in 1853.

The Germans and Americans began their *Journals* in the following year—1844; the former, the "*Allgemeine Zeitschrift für Psychiatrie*," and the latter the "*American Journal of Insanity*."

I believe that our Association has precedence of any other devoted to Medical Psychology, and it is an interesting fact that its establishment led to that of the corresponding Association in France—a Society whose secretary, M. Motet, I am glad to see among my auditors. The Association of Medical Superintendents of American Institutions for the Insane was instituted in 1844. That of Germany in 1864, the subject of Psychology having previously formed a section of a Medical Association.

Returning to our own country, I may observe that when Dr. Hitch, of the Gloucester Asylum, issued the circular which led to the formation of this Association in 1841, almost exactly half a century had elapsed since the epoch which I may call the renaissance of the humane treatment of the insane, when the Bicêtre in France, and the York Retreat in England, originated by their example, an impulse still unspent, destined in the course of years to triumph, as we witness to-day, and owing this triumph, in large measure, to the efforts of two men who, forty years ago, shortly after the well-known experiment at Lincoln, by the late Mr. Robert Gardiner Hill, were actively engaged in ameliorating the condition of the insane. The layman and the physician (alike forward to recognise the services of the pioneers of 1792), each in his own sphere having a common end in view, and animated by the same spirit, gave an impetus to the movement, the value and far-reaching extent of which it is almost impossible to exaggerate. Lord Shaftesbury, celebrating his 80th birthday this year, still lives to witness the fruits of his labours, of which the success of the well-known Acts with which his name is associated, will form an enduring memorial. Dr. Conolly was in his prime. He had been two years at Hanwell, and was contending against great difficulties with the courage

determination which characterised him. I do not hold the memory of Conolly in respect, merely or principally because he was the apostle of non-restraint, but because, although doubtless fallible (and indiscriminate eulogy would defeat its object) he infused into the treatment of the insane a contagious earnestness possessing a value far beyond any mere system or dogma. His real merit, his true glory, is to have leavened the opinions and stimulated the best energies of many of his contemporaries, to have stirred their enthusiasm and inflamed their zeal, to have not only transmitted but to have rendered brighter the torch which he seized from the hands of his predecessors. He desired to be remembered after his death by asylum superintendents as one who sincerely wished to place the insane in better hands than those in which he too generally found them; and I hold that whatever may be our views on what we have chosen to call non-restraint, we may cordially unite in fulfilling his desire.

As the non-restraint system—a term it must be confessed which cannot boast of scientific precision, but is well understood—has been the leading, and often engrossing topic of discussion during the time over which I am travelling, I must not omit a brief reference to it. No one will call in question the statement as an historical fact that the Commissioners in Lunacy, and the medical superintendents of asylums in this country are, with few exceptions, in favour of non-restraint. Dr. Lauder Lindsay—for whose death, as well as that of Dr. Sherlock and of Dr. White Williams, during the last year, the tribute of sorrowful regret ought, in passing, to be paid—Dr. Lindsay, I say, had only a small following in Great Britain. In Germany, on the other hand, although Griesinger looked favourably upon the system, and Westphal has advocated it, and Brosius has translated Conolly's standard work into German, there has not been a general conversion, as may be seen by the discussion which took place in 1879, at meetings of the Psychological Society in Berlin and Heidelberg; while in France, although Morel gave it the sanction of his name, and Magnan has practised it recently, there has been within the last twelve months a striking proof of anti-non-restraint opinion among the French physicians, in an interesting discussion at the Société Médico-Psychologique. I wish here only to chronicle the fact, and would urge the necessity of not confounding honest differences of opinion with differences of humane feeling. The non-restrainer is within his right when he practises the

system carried to its extremest lengths. He is within his right when he preaches its advantages to others. But he is not within his right if he denounces those physicians, equally humane as himself, who differ from him in opinion and practice. I therefore unite with the observation of Dr. Ray, by whom the non-restraint system as a doctrine was not accepted—and the same may be said of the majority of his fellow-psychologists—when he wrote thus in 1855, “Here, as well as everywhere else, the privilege of free and independent inquiry cannot be invaded without ultimate injury to the cause.”*

The arguments in favour of mechanical restraint are clearly set forth by Dr. John Gray, of the Utica Asylum, in his Annual Report of the present year.

Leaving this subject, let me recall to your recollection that when this Association was formed, the care of the insane in England and Wales was regulated by the Gordon-Ashley Act of 1828,† which, among other reforms, had substituted for the authority of five Fellows of the College of Physicians who performed their duties in the most slovenly manner, fifteen Metropolitan Commissioners in Lunacy. I find, on examining the Annual Report of these Commissioners issued in 1841, that it does not extend over more than one page and a half! It is signed by Ashley, Gordon, Turner, Southey, and Proctor. They report the number confined in the 33 asylums within their jurisdiction as 2,490. Their verdict on inspecting them is expressed in half-a-dozen words, namely, that the “result is upon the whole satisfactory.”

“The business of this Commission,” they say, “has very much increased, partly by more frequent communications with the provinces (over which, however, they have no direct legal control), and partly by the more minute attention directed by the Commissioners to individual cases with a view to the liberation of convalescent patients upon trial. . . . and the consequence has been that many persons have been liberated who otherwise would have remained in confinement.”

That a state of things in which such an occurrence was possible, should be described as on the whole satisfactory, is somewhat remarkable, and in reading this paragraph we cannot but contrast with it the very different result of the

* “American Journal of Insanity,” April, 1855.

† 9 Geo. IV., c. 40.

investigation made by the Committee of the House of Commons in 1877.

Again, nothing more strikingly marks the change which has taken place in the inspection of asylums than the contrast between the last Report of the Lunacy Commissioners consisting of a bulky volume of more than 400 pages, and that of 1841, to which I have referred. In fact, the Reports of the Commissioners form the best evidence to which I can refer of the progress made from year to year in the provision for the insane, and the gradual but uninterrupted amelioration of their condition.

An important advance was made in 1842 by the Act 5 and 6 Vict., c. 87, which provided that Provincial Houses were to be visited by the Metropolitan Commissioners as well as those in their own district. They were also to report whether restraint was practised in any asylum, and whether the patients were properly amused and occupied. Not only was a great step forward made by thus extending the inspecting power of these Commissioners to the provinces, but their memorable Report on the state of the Asylums in England and Wales in 1844, led to the highly important legislation of the following year (introduced by Lord Ashley)—the Act 8 and 9 Vict., c. 100, which along with the acts of 1853 (16 and 17 Vict., c. 96, 97)* and 1862, (25 and 26 Vict., c. 111) form, as you are well aware, the Code of Lunacy Law under which, for the most part, the care of the insane is determined and their protection secured.

I should like to have been able to state the number of recognised lunatics in England and Wales forty years ago, but no return exists which shows it. The nearest approach is to be found in the Report just referred to of the Metropolitan Commissioners (1844), in which the number of ascertained lunatics in England and Wales is stated to be about 20,000, of whom only 11,272 were confined in asylums, whereas, now there are nearly 55,000. It is difficult to realize that there were then only some 4,000 patients in county asylums, these being 15 in number, and there being 21 counties in England and Wales in which there were no asylums of any kind, public or private. At the present time instead of 20,000 ascertained lunatics and idiots, we have 73,113—an increase represented by the population (municipal) of York—instead

* Amended by 18 and 19 Vict., c. 105, 1855. Acts referring to Lunacy Commissions and Chancery Patients, 16 and 17 Vict., cap. 70; 25 and 26 Vict., c. 86, 1862.

of 15 county asylums we have 51; their population being nearly 40,000, instead of 4,000, while the Provincial Licensed Houses have decreased from 94 to 59, and the Metropolitan increased by 2. The total number of asylums in England and Wales in 1844 was 158, now it is 175—excluding those (3) erected under Hardy's Act. I need not say that these figures do not necessarily point to an increase of lunacy, but may merely represent the increased accommodation which ought to have been provided long before. Into the general question of the spread of insanity I feel that it would be impossible to enter satisfactorily now.

Recurring to the Metropolitan Commissioners' Report, I must observe that while an immense advance took place between 1828, when they were appointed, and 1844, the subsequent advance between the latter date and now is such that we cannot but recognise the extremely beneficial operation of the legislation which has marked this period. It must also be gratifying to Scotch asylum superintendents, knowing as they do the satisfactory condition of the insane in their country in 1881, to be able to measure the progress made since Lord Ashley, in his speech in 1844, moved for an address to the Crown, praying Her Majesty to take into consideration the Commissioners' Report, for he there observes, "I believe that not in any country in Europe, nor in any part of America, is there any place in which pauper lunatics are in such a suffering and degraded state as those in Her Majesty's kingdom of Scotland." I need not do more than chronicle the fact in passing that the reform in Scotland dates, to a large extent, from the appointment of a Royal Commission in 1855, and the action of the Board of Lunacy Commissioners which was established in consequence. Legislation for Ireland and the appointment of Inspectors have likewise proved very beneficial in that country. But restricting my remarks to England and Wales, I would observe that the establishment by the Act of 1845 of the Lunacy Board as at present constituted, and the rendering it compulsory upon counties to provide asylums for pauper lunatics, are the chief causes of the improvement to which I have referred, so far, at least, as it has been brought about by legislation.

I will not dwell in detail on the lunacy legislation of these years. To have said less would have been to overlook the salient and most important facts of the period. To have said more would have been to travel over the ground so ably occupied by Dr. Blandford in his Presidential Address three

years ago. He, by-the-bye, complained of the ever increasing difficulty each President finds in selecting a subject for his discourse, and then immediately proceeded to effectually lessen the chances of his successors. What the last occupant of this chair will be able to discover new for his Address I do not know. I can only think of the funeral oration over this Association at its obsequies—when its “dying eyes are closed,” its “decent limbs composed,” and its “humble grave adorn’d,”

By strangers honour’d, by survivors mourn’d.

On the Board of the Commissioners in Lunacy have sat two members of our profession (one still living), to whose services I wish more especially to refer. I allude to Dr. Prichard and Mr. Gaskell.

Apart from his official work, the former will always be remembered in the republic of letters by his learned contributions to anthropology and the literature of mental diseases, in which he is more especially identified with the doctrine of Moral Insanity. Chronicler of the period in which he enunciated or rather developed it, I cannot avoid a brief reference to a theme which has caused so much heated discussion. As an impartial historian I am bound to admit that his views are still by no means unanimously adopted, and that I am only expressing my own sentiments when I avow that what Latham says of Prichard’s “*Researches into the Physical History of Mankind*”—“Let those who doubt its value, try to do without it”—applies to the teaching contained in the remarkable treatise entitled “*Different Forms of Insanity in relation to Jurisprudence*,” published in 1842. We may well be dissatisfied with some of the illustrations of the doctrine it supports. We may express in different terms the generalization he has made as to the relation of intellect and emotion; but I am greatly mistaken if we shall not from time to time be confronted by facts which instantly raise the question which presented itself with so much force to his acute mind, and which does not appear to me to be successfully met by those who controvert the conclusion at which Prichard arrived. The necessity of admitting in some form or other the mental facts in dispute, is well illustrated by the recent work by Krafft-Ebing on mental disorders. For what does this practised mental expert do? He, although the supporter of mental solidarity and the integrity of the Ego—adverse,

therefore, to the psychology in which the theory has been enshrined—feels that he must admit into his classification some term which describes certain emotional or volitional disorders, and can discover none better than “moral insanity”—a practical, though reluctant admission of the value of Prichard’s views after their discussion for forty years. I might also refer as an indication of opinion to a most excellent article in the last number of the *Journal* by Dr. Savage, who, while recognising the abstract metaphysical difficulty of conceiving moral as distinct from intellectual insanity, fully admits as a clinical fact the form of mental disease for which Prichard contended, and had he been living he would doubtless have claimed this article as a striking proof of the vitality of his opinions.

One is certainly disposed to exclaim, if observation on the one hand compels us to admit certain mental facts, and the metaphysician on the other, declares them to be unmetaphysical, so much the worse for metaphysics!

Mr. Gaskell, in addition to his good work as a reformer at the Lancaster Asylum, where may yet be seen preserved quite a museum of articles of restraint formerly in use in that institution, and his efficient labours as a Commissioner, was also, it may not be generally known, the real cause of the practical steps taken in this country to educate the idiot. It was in 1847 that he wrote some articles in “*Chambers’ Journal*,” giving an account of Seguin’s Idiot School at the Bicêtre, which he had visited and been greatly interested in. These articles had the effect of inducing Dr. Andrew Reed to interest himself in the establishment of a school for idiots in England. The Highgate and Colchester Asylums for idiots were instituted—the origin, as it proved, of the great establishment at Earlswood. All, therefore, that has been done for this pitiable class has been effected during the last forty years. The indefatigable Seguin has passed away during the last twelve months. He pursued to the last with unabated zeal a study possessing attractions for only a limited number, and advocated the claims of idiots and imbeciles with unceasing energy in the old world and the new. Fortunately his mantle has descended upon a worthy successor in the person of his son, Dr. E. Seguin, of New York.

It has necessarily happened that the direction of public attention to the larger and better provision for the insane

in all civilized lands has led to much consideration, and inevitably some difference of opinion as regards the form and arrangement of asylums. But all will admit that their construction has undergone a vast improvement in forty years. The tendency at the present moment is to attach less importance to bricks and mortar, and the security of the patient within a walled enclosure, than to grant the largest possible amount of freedom, in asylums, compatible with safety. The more this is carried out, the easier, it is to be hoped, will it be to induce the friends of patients to allow them to go in the earliest stage of the disorder to an asylum, as readily as they would to a hydropathic establishment or an ordinary hospital, to which end medical men may do much by ignoring the stupid stigma still attaching to having been in an asylum. The treatment of the insane ought to be such that we should be able to regard the asylums of the land as one vast Temple of Health, in which the priests of Esculapius, rivalling the Egyptians and Greeks of old, are constantly ministering, and are sacrificing their time and talents on the altar of Psyche.

Most heartily do I agree with Dr. Kirkbride when he says that "Asylums can never be dispensed with—no matter how persistently ignorance, prejudice, or sophistry may declare to the contrary—without retrograding to a greater or less extent to the conditions of a past period with all the inhumanity and barbarity connected with it. To understand what would be the situation of a people without hospitals for their insane, it is only necessary to learn what their condition was when there were none."*

In advocating the prompt and facile recourse to an asylum, I include, of course, the cottage treatment of the insane so long ago resorted to by Dr. Bucknill, and extended in so admirable a manner by my immediate predecessor in this chair, whose practical observations last year on the villas and cottages at Cheadle rendered his Address one of the most valuable that has been delivered. Moreover, I would not say a word in disparagement of the placing of suitable cases in the houses of medical men, or in lodgings, under frequent medical visitation. I also recognise the value of intermediate or border-land institutions, so long as they are conducted with the sanction of the Commissioners and open to their inspection.

* "On the Construction, Organization, &c., of Hospitals for the Insane." By Thomas S. Kirkbride, M.D., LL.D. Philadelphia, 1880, p. 300.

The modern advocacy of the open-door system has been recently brought under the notice of the Association by Dr. Needham, with the view of obtaining a general expression of opinion on a practice, to the wisdom of which he is disposed to demur.

But a less regard for mere bricks and mortar, the removal of high boundary walls and contracted airing courts, or the introduction of the open-door system, do not lessen the importance of properly constructed asylums. The works of Jacobi in Germany, Kirkbride in America, Parchappe in France, and Conolly in England, must retain their value as classical productions on this subject; while the contributions recently made by Dr. Clouston present not only the general principles of asylum construction, but the minute details of building in the light of the knowledge and experience of the present day.

I was fortunate in being able to render M. Parchappe some service when he visited England to examine the construction of our asylums. Those who formed his acquaintance on the occasion of this visit may remember his mixed feelings on visiting them, how he demurred on the one hand to what he regarded as too costly and ornamental, while on the other hand he liked the English arrangement of the buildings better than the Esquirol-Desportes system. I need not point out that those who have had the planning of the county asylums in England have objected, as well as Parchappe, to the distribution of isolated pavilions upon parallel lines. Parchappe, while far from believing it to be indispensable to make asylums monuments fitted to excite admiration for the richness of their architecture, and indisposed to emulate our asylums which, he says, only belong to princely mansions, turns nevertheless from the square courts and the isolated pavilions of Esquirol to apostrophise the former in these glowing terms:—

How much more suited to re-animate torpid intelligence and feeling, or to distract and console melancholy among the unfortunate insane, these edifices majestic in their general effect and comfortable in their details, these grandiose parks, with luxuriant plantations and verdant flowery lawns, whose harmonious association impresses upon English asylums an exceptional character of calm and powerful beauty!

Whether a stranger, having read this florid description of our asylums would not, on visiting them, be a little disappointed, I will not stop to enquire. Probably during this

or the following week, some of Parchappe's compatriots may answer the question for themselves.

The fundamental question of the separation of the curable and incurable classes has in different countries been earnestly discussed during the last forty years. Kirkbride has entered his "special and earnest protest" against this separation; his own countryman, Dr. Stearns, on the other hand, has lately advocated it. In Germany, where, following the lead of Langermann and Reil, complete separation of the curable in one building was first realized under Jacobi at Siegburg, there has been a complete reversion to the system of combining the two classes in one institution. Parchappe, who opposed the separation of these classes, as illusory if justice is done to the incurable in the construction of the building provided for them, and mischievous if this is denied them, was constrained to admit, however, in view of the enormous number of lunatics in the Department of the Seine, that it was the least of two evils to separate the epileptic and the idiotic from the curable.

In England the separation principle has been recognised in Hardy's Act (30 Vict., c. 6) for the establishment in the Metropolis of Asylums for the Sick, Insane, and other classes of the Poor, 1867; and, again, in the erection of such an asylum as Banstead for Middlesex—and I am informed by Dr. Claye Shaw, who, from holding the office of Superintendent there, and formerly superintending the Metropolitan District Asylum of Leavesden, is well calculated to judge, that the experiment has proved successful—that the patients do not suffer, and that the office of Superintendent is not rendered unendurable. Regarded from an economic point of view, it has been found practicable to provide buildings at a cost of between £80 and £90 per bed, which, though not æsthetic, are carefully planned for the care and oversight of the inmates. This includes, not only the land, but furnishing the asylum.

Five years ago this Association unanimously adopted a resolution, expressing satisfaction that the Charity Organization Society had taken up the subject of the better provision, in the provinces, for idiots, imbeciles, and harmless lunatics, and the following year carried a resolution, also unanimous, that the arrangement made for these classes in the Metropolitan District is applicable in its main principles to the rest of England. But it does not follow that the separation of these classes from the County Asylums should be so complete,

either as respects locality or the governing board, as in the metropolitan district; and, further, the Association expressed a strong opinion that the boarding out system, although impracticable in the urban districts, should be attempted where ever possible in the country; the greatest care being taken to select suitable cases, unless we wish to witness the evils which Dr. Fraser has so graphically depicted in his Report for 1877 of the Fife and Kinross Asylum. If pauper asylums can, without injury to families, be relieved by harmless cases being sent home to the extent Dr. Duckworth Williams has succeeded in doing in Sussex, and, if as he proposes, they were periodically visited, their names being retained on the asylum books, the enlargement of some asylums might be rendered unnecessary.

But what, gentlemen, would be the best contrived separation of cases, what would the best constructed asylum avail, unless the presiding authority were equal to his responsible duties? Now it is one of the happy circumstances connected with the great movement which has taken place in this and other countries, that men have arisen in large numbers who have proved themselves equal to the task. We witness the creation of an almost new character—the Asylum Superintendent.

One Sunday afternoon, some years ago, Dr. Ray fell asleep in his chair while reading old Fuller's portraits of the Good Merchant, the Good Judge, the Good Soldier, &c., in his work entitled, "The Holy and Profane State," and, so sleeping, dreamed he read a MS., the first chapter of which was headed, "The Good Superintendent." Awakening from his nap by the tongs falling on the hearth, the doctor determined to reproduce from memory as much of his dream as possible for the benefit of his brethren. One of these recovered fragments runs thus:—"The Good Superintendent hath considered well his qualifications for the office he hath assumed, and been governed not more by a regard for his fortunes than by a hearty desire to benefit his fellow-men. . . . To fix his hold on the confidence and goodwill of his patients he spareth no effort, though it may consume his time and tax his patience, or encroach seemingly on the dignity of his office. A formal walk through the wards, and the ordering of a few drugs, compriseth but a small part of his means for restoring the troubled mind. To prepare for this work, and to make other means effectual, he carefully studieth the mental movements of his patients. He never grudges the

moments spent in quiet, familiar intercourse with them, for thereby he gaineth many glimpses of their inner life that may help him in their treatment. . . . He maketh himself the centre of their system around which they all revolve, being held in their places by the attraction of respect and confidence.”*

And much more so admirable that it is difficult to stay one's hand. You will, I think, agree with me that what Dr. Ray dreamed is better than what many write when they are wide awake, and those familiar with Dr. Ray's career, and his character, will be of the opinion of another Transatlantic worthy (Dr. John Gray, of Utica) that in this act of unconscious cerebration the dreamer unwittingly described himself—

“The Good Superintendent!” Who is he?
The master asked again and again;
But answered himself, unconsciously,
And wrote his own life without a stain.

In what a strange land of shadows the superintendent lives! But for his familiarity with it, its strangeness would oftener strike him. It becomes a matter of course that those with whom he mixes in daily life are of Imperial or Royal blood—nay, more, possess Divine attributes—and that some who are maintained for half-a-guinea a week, possess millions and quadrillions of gold. He lives, in truth, in a world inhabited by the creatures of the imagination of those by whom he is constantly surrounded—a domain in which *his* views of life and things in general are in a miserable minority—a phantom world of ideal forms and unearthly voices and mysterious sounds, incessantly disputing his authority, and commanding his patients in terms claiming supernatural force to do those things which he orders them to leave undone, and to leave undone those things which he orders them to do; commanding them to be silent, to starve themselves, to kill, to mutilate or hang themselves; in short, there is in this remarkable country, peopled by so many thousand inhabitants, an *imperium in imperio* which renders the contest continuous between the rival authorities struggling for supremacy, sometimes, it must be confessed, ending in the triumph of the ideal forms, and the phantom voices, and the visionary sights, which may be smiled at in

* “Ideal Characters of the Officers of a Hospital for the Insane.” By I. Ray, M.D. Phil., 1873.

our studies, and curiously analysed in our scientific alembics, but cannot be ignored in practice without the occurrence of dire catastrophes, and the unpleasant realisation of the truth that idealism, phantasy and vision may be transformed into dangerous forms of force. It may be said, indeed, that the appropriate motto of the medical superintendent is—“*Insanitas insanitatum, omnia insanitas.*”

With such an *entourage* it is not surprising if the first residence in an asylum as its responsible head—especially an asylum in the olden days—should disconcert even a physician. A German psychologist once declared, after passing his first night in an institution as superintendent, that he could not remain there; he felt overwhelmed with his position. Yet this physician remained not only over the next night, but for thirty-five years, to live honoured and venerated as Maximilian Jacobi, and departing to leave behind him “footprints on the sands of time,” from seeing which, others, in a similar hour of discouragement, may again take heart.

I cannot pass from this subject without enforcing, as a practical comment, the necessity of asylum physicians having a very liberal supply of holidays, so as to ensure a complete change of thought from not only the objective but the subjective world in which they live, and this before the time comes when they are unable to throw off their work from their minds, as happened to a hard-working friend of mine, who, even during his holiday among the Alps, must needs dream one night that he was making a post-mortem upon himself, and on another night rose from his bed in a state of somnambulism to perform certain aberrant and disorderly acts, not unlike what his patients would have performed in the day.

I have heard it suggested that superintendents should have six weeks' extra holiday every third year, five of them to be spent in visiting asylums. Whether this is the best way of acquiring an interchange of experience or not, I will not decide, but no doubt the feeling, how desirable it is men should compare notes with their fellow-workers, prompted the founders of our Association (which was expected to be more peripatetic than has proved to be the case), to determine that its members should at its annual meetings carefully examine some institution for the insane.

It is not too much to say that only second in importance to a Good Superintendent is a Good Attendant, and

of him also Dr. Ray dreamed in his Sunday afternoon vision, and his description is equally excellent.

I am sure that it will be admitted that the last forty years have seen a vast improvement in the character of attendants, and among them are to be found many conscientious, trustworthy men and women, forbearing to their charge and loyal to their superintendent. It is not the less true that for asylums for the middle and higher classes the addition of companionship of a more educated character is desirable, and it is satisfactory to observe that there is an increasing recognition of its importance, as evidenced by the Reports of our asylums.*

One word now in regard to the advance in our Classification of mental disorders, though I hardly dare to even touch thus lightly upon so delicate a subject, for I have observed that it is one of those questions in our department of medicine—dry and unexciting as it may at first sight seem to be—which possess a peculiar polemical charm.

Few circumstances are more noteworthy than the attacks which have been made upon the citadel of the Pinel-Esquirol classification, the symptomatological expression of the disease—attacks not new forty years ago, but renewed with great force and spirit by Luther Bell, in America, and subsequently by Schroeder van der Kolk in Holland, Morel in France, and Skae in Britain. When Dr. Bell asserted that this system of symptoms “would not bear the test of accuracy as regards the cause of the disease or the pathological condition of the sufferer;” that the forms in use “were merely the changing external symptoms, often having scarcely a diurnal continuance before passing from one to another,” and constituting a division useless as regards moral or medical treatment, he expressed in a nutshell all the objections since urged against the orthodox classification by the other alienists I have mentioned. These, however, substituted a mixed ætiological or pathogenetic classification, which Bell did not, and this classification is, in its essential characters, on its trial to-day. The wave of thought which bore these attempts to the surface was a wholesome indication of the desire to look beneath the mere symptom right down to the physical state which occasioned it, and upon which the somatic school of German alienists had long before laid so much stress.

* See Dr. Baker's Annual Reports of the York Retreat, and Dr. Rees Philipps's last Report of the Wonford Asylum, Exeter, &c., &c.

The movement has been useful, if for no other reason than that it has concentrated attention afresh and more definitely upon the conditions which may stand in causal relation with the mental disorder, nor has it been without its influence in affecting the terms generally employed in the nomenclature of insanity. At the same time it is very striking to observe how the great types of mental disorder adopted and in part introduced by the great French alienists have essentially held their ground, and if their citadel has had in some points to parley with a foeman worthy of their steel, and even treat with him as an honourable rival, they remain still in possession, and their classification of symptoms seems likely to remain there for long to come. As such, these types are partly founded upon clinical, and to some extent, pathological observation, and may well be allowed with a few additional forms to stand side by side with a somato-ætiological nomenclature, as it grows up slowly and cautiously, reared on scientific observation and research; and had Skae been living he would have rejoiced to hear Mr. Hutchinson assert the other day that in all diseases, "our future classification must be one of causes and not external symptoms, if we would desire to construct anything like a natural system, and trace the real relation of diseases to their origin."

In a sketch, however brief, of the progress of Psychological Medicine since the foundation of this Association in 1841, it would be a serious omission not to notice the important contributions of Dr. Laycock shortly before as well as shortly after the year I have mentioned. In 1840 he published the opinion that, "the brain, although the organ of consciousness, is subject to the laws of reflex action, and in this respect does not differ from other ganglia of the nervous system."* And in a paper read before the British Association, September, 1844, he observed, "Insanity and dreaming present the best field for investigating the laws of that extension of action from one portion of the brain to the other, by which ideas follow each other in sequence, giving as an illustration the case of a patient at the York Retreat, whose Will being suspended, he expressed ideas as they spontaneously arose in associated sequence, the combination being singularly varied, but traceable to a common root or centre of impulse. Re-

* "A Treatise on the Nervous Diseases of Women." By Thomas Laycock, M.D. 1840. Chapter ix, p. 107.

searches of this kind," Laycock continues, "whether instituted on the insane, the somnambulist, the dreamer, or the delirious, must be considered like researches in analytical chemistry. The re-agent is the impression made on the brain; the molecular changes following the applications of the re-agent are made known to us as ideas."*

Time will not allow me to cite other passages in these remarkable papers, or later ones; but these are sufficient to show the germ at that early period of the doctrine of cerebral reflex action, and the unconscious cerebration of Carpenter, the seeds having been already sown by Unzer and Prochaska, and arising out of it, that of automatic states occasioned or permitted by the abeyance of a higher restraining power—the Will, according to Laycock, in the case he employs as an illustration of his doctrine. His teaching in regard to mental and nervous disorders due to vaso-motor disturbance also deserves recognition.

Dr. Henry Monro, again, in a treatise, published in 1851, put forward a theory of the pathology of insanity, the essence of which was that the cerebral masses having lost their static equilibrium exhibit in their functions two different degrees of deficient nervous action (coincidentally), viz., irritable excess of action and partial paralysis. He maintained that these two states do not fall alike upon all the seats of mental operations, but that there is "a partial suspension of action" of "the higher faculties, such as reason and will," while there is an irritable excess of action of the seats of the more elementary faculties, such as conception, &c., and hence delusions and the excessive rapidity of successive ideas. Dr. Monro compares this condition to a case of paralysis, combined with convulsions; and discusses the question whether the temporary and partial paralysis occurring as he supposes in insanity, "results directly and entirely from excessive depression of the nervous centres of those higher faculties, or partly in an *indirect* manner from nervous energy being abstracted to other parts which are in more violent exercise at the time."†

This, it will be seen, is a still clearer statement of the doctrine that insanity is caused by the depression or paralysis of the higher nervous centres and excessive action of others.

As is well known, Dr. Hughlings Jackson, whose views re-

* "Brit. and For. Med. Rev." Jan. 1845, p. 311.

† "Remarks on Insanity, its Nature and Treatment," p. 14.

garding active states of nerve structures as liberations of energy or discharges, are familiar to us all, has adopted and extended Laycock's doctrine which he designates as "one of inestimable value," and has urged the importance of Monro's doctrine of negative and positive states in cases of insanity, using the term "insanity" in an exceedingly wide sense. He has pointed out that Anstie and Thompson Dickson have also stated the doctrine that so-called "exaltation of faculties" in many morbid states is owing to "insubordination from loss of control," and that the same was said in effect by Symonds, of Bristol. Adopting the hypothesis of evolution as enunciated by Herbert Spencer, Dr. Hughlings Jackson thinks that cases of insanity, and indeed all other nervous diseases may be considered as examples of Dissolution, this being, I need not say, the term Spencer uses for the process which is the reverse of Evolution. Insanity, then, according to this view, is Dissolution beginning at the highest cerebral centres, which centres, according to Jackson, represent or re-represent the whole organism. There are distinguishable, he believes, cases of uniform Dissolution, the process affecting the highest centres nearly uniformly, and cases of partial Dissolution in which only some parts of these centres are affected. The Dissolution, again, whether uniform or partial, varies in "depth;" the deeper it is the more general are the manifestations remaining possible. The degree of "depth" of Dissolution is, however, but one factor in this comparative study of insanity. Another is the rapidity with which it is effected. To this, Dr. Jackson attaches extreme importance, believing that degrees of it account for degrees of activity of those nervous arrangements next lower than those *hors de combat* in the Dissolution. Another factor is the kind of person to whom Dissolution "comes." And the last factor is the influence of circumstances on the patient undergoing mental Dissolution. All factors should, of course, be considered in each case, or as Dr. Jackson characteristically puts it, "insanity is a function of four variables." I refer to these opinions to show the direction in which some modern speculation on the nature of insanity tends, that thus tracing the course of thought in recent years we may see how, step by step, certain views have been reached, some of them generally adopted, others regarded as still requiring proof before they can be accepted.

The negative and positive view of the nature of insanity receives support, I think, from the phenomena of Hypno-

tism which, about forty years ago, attracted, under the name of Mesmerism, so much attention in England in consequence of the proceedings of Dr. Elliotson in the hospital and college where we meet to-day. This was in 1838, and Braid's attention was arrested by what he witnessed in 1841. It is no reason because we have re-christened Mesmerism that we should ignore the merit of those who, as to matters of fact, were in the right, however mistaken their interpretation may have been.

Elliotson recorded some striking examples of induced hallucinations and delusions, and in an article in the *Journal* in 1866, I endeavoured to show how suggestive similar instances which I then reported are in relation to certain forms of insanity, and also in relation to sudden recovery from mental disease; the conclusion being forced upon us that there may be cases in which no change takes place in the brain which the ablest microscopist is likely to detect, but a dynamic change—one more or less temporary in the relative functional power of different cerebral centres, involving loss or excess of inhibition.

Nor can I, in connection with the reference to cerebral localisation, allow to pass unrecorded the researches of Fritsch, Hitzig, and Ferrier, on account of the intimate, although only partial relation in which they stand to mental pathology—a relation promising to become more intelligible and therefore more important as the true meaning of the psycho-motor centres becomes better understood, for that we are only on the threshold of this inquiry must be evident, when men like Goltz, Munk, and other investigators call in question the conclusions which have been arrived at.

But be the final verdict what it may, when I look back to the time when "*Solly on the Brain*" was our standard work, and then turn to Ferrier's treatise on its functions, to the remarkable works of Luys, and to Dr. Bastian's valuable contribution to the *International Series*, I cannot but feel how unquestionable has been the advance made in the physiology of the brain, strangely bent as Nature is on keeping her secrets whenever the wonderful nexus which binds together, yet confounds not, mind and brain, is the subject of investigation.

The past forty years have witnessed a great change in the recognition of mental disease as an integral part of disorders of the nervous system, and medical psychology is less and

less regarded as a fragment detached from the general domain of medicine. Contributions from all lands have conspired to produce this effect, the somatic school of psychologists in Germany having exerted, probably, the most influence. And we are proud to number in France among our roll of associates a physician who, not only by his pathological researches into diseases of the brain and cord, but by his clinical study of affections closely allied to mental derangement, has by the brilliant light he has thrown upon the whole range of diseases of the nervous system, advanced the recognition of which I have just spoken. I need not say that I refer to our distinguished honorary member, Professor Charcot.

No one will deny that the relations of mind and brain, physiologically and pathologically considered, have in our own country been ably handled by Dr. Maudsley. Those who most widely differ from some of his conclusions will acknowledge this ability, and that his works are expressed in language which, with this author, is certainly not employed to conceal his thoughts. To trace the influence of these writings, and those of Herbert Spencer, Bain, and others of the same school, on the current belief of psychologists would, however, carry me far beyond the legitimate limits of an Address, but I may be allowed to observe that here, as elsewhere, we must not confound clearly ascertained facts in biology and mental evolution with the theories which are elaborated from them. The former will remain : the latter may prove perishable hay and stubble, and when we overlook or ignore this distinction, it must be admitted that we expose ourselves to the just rebuke of the celebrated Professor of Berlin when he protests against "the attempts that are made to proclaim the problems of research as actual facts, the opinion of scientists as established science, and thereby to put in a false light before the eyes of the less informed masses, not merely the methods of science, but also its whole position in regard to the intellectual life of men and nations." He is surely right when he insists that if we explain attraction and repulsion as exhibitions of mind, we simply throw *Psyche* out of the window and *Psyche* ceases to be *Psyche* ;* and when, allowing that it is easy to say that a cell consists of minute particles, and these we call *Plastidules*, that *Plastidules* are composed of carbon and hydrogen, oxygen, nitrogen, and are endued

* "I agree with Mr. Martineau in repudiating the materialistic hypothesis as utterly futile."—HERBERT SPENCER, "Contemporary Review," June, 1872.

with a special soul, which soul is the product of some of the forces which the chemical atom possesses, he affirms that this is one of those positions which is still unapproachable, adding, "I feel like a sailor who puts forth into an abyss, the extent of which he cannot see," and, again, "I must enter my decided protest against the attempt to make a premature extension of our doctrine in this manner—never ceasing to repeat a hundred-fold a hundred times 'Do not take this for established truth.' " *

We all believe in cerebral development according to what we call natural laws or causes, and in the parallel phenomena of mind; as also in the arrested and morbid action of brain-power by infractions of laws or by causes no less natural. In this sense we are all evolutionists. The differences of opinion arise when the ultimate relations of matter and mind are discussed, and when a designing force at the back of these laws is debated. But these questions in their relation to mental evolution, as to evolution in general, do not enter the domain of practical science, and are not affected by the degree of remoteness, according to our human reckoning, of this force or "Ultimate Power."

It will not be denied that at least the foundations of the pathology of insanity have been more securely laid in cerebral physiology during the last forty years, in spite of the fact that the relation of the minute structure of the brain to its functions, and the nature of the force in operation still elude our grasp. The so-called disorders of the mind having been brought within the range of the pathologist, what can he tell us now of the post-mortem lesions of the insane? Can he give a satisfactory reply to the question asked by Pinel, in his day, "Is it possible to establish any relation between the physical appearances manifested after death, and the lesions of intellectual function observed during life?" †

It is a little more than forty years since Lélut published his work entitled, "The Value of Cerebral Alterations in Acute Delirium and Insanity," and Parchappe his "*Recherches*," to be followed by other works containing valuable contributions to the pathological anatomy of mental disease. To attempt to enumerate the contributions to this department abroad and at home would be simply impossible on the present occasion. I cannot, however, omit to notice how early Dr.

* "Die Freiheit der Wissenschaft im Modernen Staat." Rudolf Virchow. Berlin, 1877.

† Preface to his work on Mental Alienation, p. 20.

Bucknill was in the field, as his laborious examination of a number of brains of the insane to determine the amount of cerebral atrophy and the specific gravity, bear witness, as also his demonstration of the changes which take place, not only in the brain and its membranes, but in the cord, in general paralysis; these observations along with those of Dr. Boyd, having been fully confirmed by subsequent observers.

I recall here, with interest, a visit I paid eight-and-twenty years ago to Schroeder van der Kolk at Utrecht, whom I found full of enthusiasm (although racked at the time with neuralgia) in the midst of his microscopical sections. And this enthusiasm I cannot but suspect insensibly coloured what he saw in the brains and cords of the insane, or he would hardly have said, as he did say, that he had never failed during a quarter of a century to find a satisfactory explanation after death of the morbid mental phenomena observed during life.

It must not, however, be forgotten that Parchappe, just forty years ago, was able to speak as strongly in regard to the brains of general paralytics; and that of others he said that it would be nearer the truth to assert that you can, than that you can not, distinguish between a sane and an insane brain.

Since that period microscopes of higher power have been sedulously employed by European and American histologists, and in our country the example set by Lockhart Clarke has been followed by many able and successful investigators. I had intended to enumerate in some detail the gains of pathological anatomy in cerebro-mental diseases, and to endeavour to apportion to those who have cultivated this field of research their respective merits; but I find it better to consider what is the practical result of these researches. I may, however, so far depart from this course as to mention the memoirs of Dr. J. B. Tuke in the "Edinburgh Medical Journal," of 1868 and 1869, and elsewhere, on account of their importance in the history of the morbid histology of insanity.

Returning to the practical question of the knowledge now possessed by the cerebral pathologist, I will put into the witness box Professor Westphal and Dr. Herbert Major, as having enjoyed and utilised large opportunities for making microscopic and macroscopic examinations of the insane, and not being hasty—some think the former too slow—to admit the presence of distinctive lesions.

Now Professor Westphal informs me that he is unable to trace in the majority of post-mortems of the insane who have not suffered from general paralysis, any morbid appearance of the brain or its membranes, either with the naked eye or the microscope. He maintains that it would be impossible to designate amongst a hundred miscellaneous brains those which have belonged to insane persons, if the cases of general paralysis had been eliminated.

Dr. Major speaks guardedly; but inclines to think that even putting aside general paralytics, the sane may be *generally* distinguished from the insane brain. His experience at Wakefield shows that in only 17 per cent. of the autopsies (excluding general paralysis) the brain showed no decided morbid change. "It must be always remembered," Dr. Major writes, "that the difficulty is not to distinguish between the insane brain on the one hand and a perfectly healthy and vigorous sane brain on the other—the difference between these two extremes, is, in my own experience, most striking and startling. The difficulty is to distinguish between the insane brain and that of an individual sane; but in whom the brain is (as in time it may be) anæmic, wasted, or even with tracts of softening. Still," he adds, "I think, generally speaking, the sane organ may be distinguished from the insane, the decision turning largely on the *degree* of the degenerative or other morbid change."

Again, taking only cases of general paralysis, Professor Westphal holds that in by far the greater number of brains of insane persons dying in an advanced stage, morbid appearances similar to those which he has described in Griesinger's Archiv. I., &c., can be traced; the morbid appearances of the cord occurring more constantly than those of the brain.

Dr. Major found that of the post-mortems of paralytics, all displayed appreciable morbid lesions, although in 5 per cent. of cases they were not typical of general paralysis.

Then coming definitely to the question whether these pathologists have, to any considerable extent, been able to connect the morbid appearances found in cases of insanity with the symptoms, including motor troubles, Dr. Major says that at present he cannot; and Professor Westphal says that he regards "the connection of morbid symptoms with the changes found after death as exceedingly uncertain and doubtful."

I should observe that Dr. Major grounds his statements upon his own recent experience and observation at Wake-

field, and that he is not disputing the greater preference shown by certain lesions in general paralysis for particular localities; but only that he does not yet see his way to connect them with the abnormal symptoms present during life. The researches carried on by Dr. Mickle, contributed to our Journal (Jan. 1876), and those of Dr. Crichton Browne, published with illustrations in the West Riding Reports, must be regarded along with M. Voisin's large work and Hitzig's article in Ziemssen's *Cyclopædia*, as placing before us whatever evidence can be adduced on the relations between the pathology of general paralysis and cerebral physiology. Hitzig, who from his investigations into the cerebral motor centres, and his position in an asylum for the insane, ought to be qualified to judge, surmises that those localities of the brain by the electrical irritation of which in animals he produced epileptiform attacks bearing the closest resemblance to the attacks of paralytics, are affected in general paralysis. He thinks, moreover, that as destruction of these cortical spots causes disturbance of motion, resembling the symptoms pathognomonic of grey degeneration of the posterior columns observed in general paralysis, there is an added reason for assuming this connection.

Dr. Mickle in his recent excellent work on general paralysis has exercised much cautious discrimination in admitting the relation between the symptoms and the alleged psycho-motor centres, and while his researches in a rich field of observation at the Grove Hall Asylum lead him to find some cerebral lesion in every case, especially in the fronto-parietal region, he cautions against the "too ready indictment of motor centres in the cerebral cortex as answerable for the most frequent and characteristic motor impairment, that of the lips, tongue, face, and articulatory organs generally;" fully believing, however, that in the production of these symptoms the cortical lesion is at the very least an important factor. "Whether the principal mental symptoms can be entirely referred," he says, "to the organic changes in certain frontal (and parietal) convolutions—the motor to those of the so-called cortical motor zone—the sensory to those of certain portions of the temporo-sphenoidal and parietal—must remain a matter of question," while in regard to the convulsive attacks, Dr. Mickle has in some cases been "unable to trace a harmony between these and the results of physiological experiment; in other cases they have seemed

to harmonise fairly.”* Dr. Mickle informs me that in the insane other than general paralytics, he has in the majority found some lesion in the brain and membranes.†

These results of research in cerebro-mental pathological anatomy and physiology may not seem, when placed side by side with the sanguine opinions of Schroeder van der Kolk and Parchappe, to present so triumphant a proof of progress and solid gain as might be desired or expected, and much, we must admit, has to be done before Pinel's question can be answered with the fulness we should wish. Nevertheless the advance is very considerable, and the best proof of the accumulating knowledge of the morbid histology of the brain and cord in the insane will, I think, be given this week by the collection of microscopical preparations of Gudden, Holler, &c., brought together by the untiring energy of Dr. Savage, including his own at Bethlem Hospital. I have but to point out how impossible such an exhibition would have been forty years ago to give significance to the contrast between 1841 and 1881; thanks to those who although they may still often see as “through a glass darkly,” have so wonderfully advanced the application of microscopic examination to the tissue of the brain, and prepared such beautiful sections of diseased brain and cord.

Another proof of progress might have been given, had time allowed of a reference to what has been done in the study of the brains of idiots, both morphologically and histologically, by Mierzejewski, Luys and others, these results being sufficient to prove, had we no other evidence, the fundamental truth of cerebro-mental pathology—the dependence of healthy mind on healthy brain.

We are surely justified in expecting that by a prolonged examination of every part of the brain structure, and the notation of the mental symptoms, we shall arrive in future at more definite results; that the locality of special disorders will be discovered, and that the correlation of morbid mental and diseased cerebral states will become more and more complete, that the scientific classification of mental maladies

* “General Paralysis of the Insane.” By Wm. Julius Mickle, M.D., M.R.C.P., London, 1880.

† Among the groups of cases in which they were more decidedly present is that comprising many due to syphilis; that in which degenerative changes follow upon hæmorrhagic softening, and another in which they succeed to occlusion of vessels and its immediate results. In another, degeneration and atrophy follow, the brain state conditioning acute insanity; and in another they are secondary to brain injury, not to mention many other groups.

may be one day based upon pathological as well as clinical knowledge, and psychology be founded, in part at least, upon our acquaintance with the functions of the brain. Let us hope, also even though it be a hope in the sense rather of desire than of expectation, that by these discoveries the successful treatment of mental disorders may be proportionately advanced.

I would now turn to the very important question whether the treatment of the insane has advanced since 1841?

Of course, so far as this includes moral treatment and management, it has advanced in all civilised countries in a manner calculated, all will admit, to cause the liveliest feelings of satisfaction. Putting aside *moral* treatment, we cannot boast, it must be confessed, of the same unanimity of judgment. If, however, it must be admitted that as respects details, *Tot capita, tot sensus*, it will be allowed that, notwithstanding the so many heads, and the as many opinions, the general principles of treatment based upon a just view of the general pathology of insanity, are accepted by all. There were too many who, 40 years ago, bled freely for mania, and I remember Conolly, at even a later period, complaining of the number of patients brought to him hopelessly demented in consequence of the heroic treatment to which, when maniacal, they had been subjected by men who, no doubt, still believed with Paracelsus when he said—"What avails in mania except opening a vein? Then the patient will recover. This is the arcanum. Not camphor, not sage and marjoram, not clysters, not this, not that, but phlebotomy." Well, this treatment by the Paracelsuses of 1841 has been supplanted by the more rational therapeutics which we witness in 1881.

Dr. Stokes, the highly respected superintendent of the Mount Hope Retreat, Baltimore, thus writes in his last Annual Report:—"Forty years ago, when this institution was opened, large blood-lettings—in the standing, recumbent, or sitting posture, to the amount of 30 or 40 ounces—were recommended in acute mania, followed up by local depletion, by leeches, to the number of twenty or thirty, to the temples. The moral treatment, hygienic measures, exercise, and suitable occupation were almost wholly ignored. Drastic purgatives, . . . the shower bath, large and frequent doses of tartarized antimony, and mercury to the extent of producing ptyalism, were the most popular remedial agents in the treat-

ment of insanity. This, in general terms, was the system advocated and practised when, forty years ago, this institution entered upon its God-like mission."

If the success of the treatment of insanity bore any considerable proportion to the number of the remedies which have been brought forward, it would be my easy and agreeable duty to record the triumphs of medicine in the distressing malady which they are employed to combat. But, this, unhappily is not the case. Hypodermic injections of morphia, the administration of the bromides, chloral hydrate, hyoscyamine, physostigma, cannabis indica, amyl nitrite, conium, digitalis, ergot, pilocarpine, the application of electricity, the use of the Turkish bath and the wet pack, and other remedies too numerous to mention, have had their strenuous advocates during late years. Each remedy, however, let us hope, leaves a certain residuum of usefulness behind it, though failing to fulfil all the hopes raised on its first trial.

Dr. Ramskill lately avowed his opinion in my hearing that the advent of the bromide has done infinite mischief. Others attacking chloral, would maintain that while the bromide has slain its thousands, chloral hydrate has slain its tens of thousands. In spite of this, however, Dr. Ramskill, doubtless, continues to employ the bromide; and who would wish to be deprived of chloral, or any other drug because of its abuse?

For nought so vile that on the earth doth live,
But to the earth some special good doth give;
Nor aught so good, but strai'd from that fair use,
Revolts from true birth, stumbling on abuse.

Employed without discrimination, regarded as a talisman in insomnia and excitement—petted, in short, when it ought to have been restrained—chloral became for a time the spoilt child of psychological medicine, and, like other spoilt children, it has disappointed the fond hopes of its parents.

When it is possible for a physician in asylum practice to write as Dr. Pritchard Davies has written this year in our *Journal* "On Chemical Restraint" to the effect that chloral, the bromides, and other sedatives are unnecessary, or even injurious; when, on the other hand, we have Dr. Hills replying that his experience at the Norfolk Asylum leads him to an entirely opposite conclusion; and Dr. Stokes, in America, writing thus in his Report, after 7,425 patients have been under treatment in his asylum, "without wishing to undervalue the great importance of an efficient system of

moral treatment, great results can only be expected from a patient and persevering administration of powerful remedial agencies"—I say when such contrary opinions can be expressed by practical men, one feels how impossible it is to dogmatise upon the good effected by pharmaceutical remedies in insanity, and how far we are yet from witnessing a consensus of opinion in regard to their value.

It must be frankly granted that Psychological Medicine can boast, as yet, of no specifics, nor is it likely, perhaps, that such a boast will ever be made. It may be difficult to suppress the hope, but we cannot entertain the expectation, that some future Sydenham will discover an anti-psychosis which will as safely and speedily cut short an attack of mania or melancholia as bark an attack of ague.

Rather must we rest satisfied with the general advance in treatment in a scientific direction. Most of us know asylums where within forty years and much less, tartarized antimony was in daily use in large doses as a quietus, and where croton oil was administered in addition to black draughts to a surprising extent, all these remedies being now employed only on the rarest occasions. Take an actual example, one of many, in a particular asylum. A few years ago a patient, who had been much excited and very troublesome, was treated in season and out of season with strong purgatives and sedatives. It so happened that he then fell under a new *régime*, which consisted in knocking off all these medicines and placing him under one attendant's entire supervision. The result was that he became as quiet and docile, though not cured, as any of the inmates of the asylum, and has remained so to the present time. But we may go further, and say that some cases of insanity are cured now which a few years ago would have remained uncured. Indeed in relation to the associated bodily state, it may be said that specific treatment has been adopted. Remedies, like iodide of potassium, in large doses, are employed in cases in which, from the increased attention directed in recent years to the somatic ætiology of insanity, a causal relation between the physical and mental condition was recognised, and the mental symptoms have disappeared in the most marked manner; and so again in gouty melancholia, relief has been obtained by appropriate remedies and diet. These are illustrations of the directly scientific application of medicine to medical psychology, and it is in this direction we must hope for a really satisfactory advance.

On the other hand, there are the successes obtained by the employment of drugs without our being able to say why or how they have exerted a curative agency; and it is obvious that as the number of drugs has so much increased during the period over which my survey extends, the chances of hitting on the right remedy are proportionately increased. How often we see one, two, or three drugs exhibited in mania without any result, while a fourth acts like a charm. Only by studying in detail the special characteristics of each case, can we hope to find a clue which will serve as a guide to the treatment of a subsequent one.

In this country, Dr. Clouston has distinctly advanced our knowledge of the action and uses of narcotic remedies by experiments made to determine the effect on maniacal excitement of single doses of certain remedies, stimulants and food; of, again, the effect on mania of prolonged courses of certain narcotic medicines, along with clinical observations on the effects of the same medicines in all kinds of insanity, and has determined the equivalent value of opium, bromide of potassium and cannabis indica in the treatment of insanity.

Dr. Savage has experimented with one drug at a time on a number of patients, and has already given to the profession some valuable results in "Guy's Hospital Reports," and the "Journal of Mental Science." "The West Riding Asylum Medical Reports," of Dr. Crichton Browne, also contain some important experiments with drugs by himself and others; and in this connection I would notice the excellent clinical notes issued from time to time by Dr. Williams and other officers of the Haywards Heath Asylum, which, are well worthy of more permanent record in the archives of the Association. I cannot, indeed, understand any one seriously maintaining that we are practically no better off in our medicinal resources now than we were forty years ago.

Whatever differences of opinion may exist in regard to the advantages gained by the introduction of new drugs, one thing is clear, that the employment, and let me add, the repose of patients, well ordered arrangements, and the tact of the Superintendent will oftentimes do more to reduce the amount of excitement and noise in an asylum than tons of chloral and bromide. For example, anyone who has visited Hanwell, knows that Dr. Rayner anticipates and prevents post-epileptic mania to a very large extent by the simple expedient of keeping patients in bed after their fits, just as

he finds forced alimentation of patients rarely necessary when rest is resorted to. It is striking to see how, even in an overgrown asylum and an old building, the results of good management and treatment can be highly satisfactory, and worthy of an institution of such historic fame.

But, after all, the question faces us, are there or are there not, more insane persons cured in 1881 than in 1841?

One's first impulse, of course, is to take the statistics of recovery for a certain number of the more recent, and compare them with those of the earlier years, or to take the recoveries of the past forty and place them side by side with those of the previous forty years. The attempt, however, is fraught with so many fallacies that it is dangerous to make such a comparison. In a Report of Bethlem Hospital, issued in 1841, Sir Alexander Morison stated—not as anything exceptional—that 70 per cent. of the patients had been discharged cured; while an examination of the recoveries at this hospital for the last 10 years shows a much smaller proportion per cent. But I cannot accept these comparisons as proving anything one way or the other, as various causes, quite apart from the comparative success of treatment at different periods, may explain the difference. Take a single asylum, like Hanwell, and compare the recoveries of a later with an earlier period. I find a population so fluctuating in character, in regard to curability, that the comparison becomes utterly worthless, and although it is true that during the last quinquennium 28·1 per cent. have recovered, as against 26·3 per cent. during the first quinquennium of the past 40 years, in spite of there having been more incurables received during the second period, the result is not so satisfactory when we divide into certain periods the whole time during which Hanwell has been open (omitting the first four years). It then appears that during two previous periods the recoveries were higher than 28·1 per cent., namely, from 1840 to 1849, and from 1865 to 1874. Thus:—

1835—39 (inclusive)	...	25·3
1840—49	...	28·5
1850—54	...	25·2
1855—64	...	27·9
1865—74	...	30·4
1875—79	...	26·3

Or in quinquennial periods throughout:—

1835—39 (inclusive)	...	24·8
1840—44	...	26·3
1845—49	...	32·1
1850—54	...	25·2
1855—59	...	30·7
1860—64	...	27·0
1865—69	...	30·4
1870—74	...	30·5
1875—79	...	26·3

If to escape the fallacies connected with the comparison of different periods of the same asylum, we go to the Lunacy Blue Books, we do not get any reliable figures before 1870, on account of transfers having been previously included in the admissions, so that a fair comparison of recent and former recoveries worked on the admissions is impossible.

I have before me the statistics of the Siegburg Asylum, thanks to Dr. Ripping, from its opening to its close; and I find that the recoveries during the first 25 years amounted to 42 per cent., and during the 25 years, ending with the year 1877, they were 46 per cent., thus showing an increase of 4 per cent. in the more recent period. As this asylum, now closed, has admitted curable cases only, these figures are among the few valuable statistics which I have been able to procure.

I have not succeeded in obtaining satisfactory comparative results by adopting, in the mixed asylums of England and Wales, the plan of working the recoveries, not on the total admissions, but on those only deemed curable; but to explain this fully would involve me in more detail than the occasion warrants.

I would add that in the United States, where reasons have been assigned why the statistics of asylums exhibit apparently fewer recoveries in the later than the earlier period of the last 40 years, Dr. Pliny Earle has done good service by the remarkable contribution he has made to the question of the curability of insanity, corroborating, at the same time, the somewhat unfavourable conclusion as to permanent recovery which Dr. Thurnam, in a work which will always be a Pharos to guide those who sail on waters where so many are shipwrecked, arrived at, after a laborious examination of the after history of cases discharged recovered from the York Retreat. It is likewise anything but re-assuring to find

that out of the total number of lunatics under care in England and Wales, there are at this moment only three thousand five hundred and ninety-two who are deemed curable.*

Such, gentlemen, is my Retrospect of the Past. Meagre it has necessarily been, though occupying more of your time than I could have wished, but the number of the subjects demanding reference must be my excuse.

We found at the commencement of the period we have traversed, the accommodation provided for the insane scandalously insufficient, and the condition of many of the existing asylums calling loudly for a radical reform.

We witness, to-day, throughout the kingdom a large number of institutions in admirable working order, reflecting the greatest credit upon their superintendents and committees.

We found a wholly inadequate system of inspection.

We witness now a Board of Commissioners, which without forfeiting the good will of the Superintendents, carefully inspects the asylums throughout the provinces as well as the Metropolis—as carefully and thoroughly at any rate as the same number of men originally appointed to examine into the condition of some 20,000 patients can fulfil a like duty for above 70,000.†

We found a resolute attempt being made to carry out and extend the humane system of treatment inaugurated nearly half a century before in France and England.

To-day we witness its success.

And had I had time to sketch the progress in the provision made for criminal lunatics, we should have found that just forty years ago was the commencement of what Dr. Nicolson has named the “Reactionary Period”—during which this Association petitioned the Government (in 1851) to establish a criminal lunatic asylum—followed in 1860 by the “Period of Centralization” or that of Broadmoor—an institution to-day so efficiently superintended by Dr. Orange.

And in what consists the superiority of the new over the old system of treatment—the 19th over the 18th century?

The old system was mainly one of brute force—the child alike of ignorance and fear.

* It is a remarkable fact, showing the mass of incurable cases which have accumulated, that the number of curable cases now is only about 1,000 more than it was in 1844 (2519).

The new does not indeed dispense with force, but it is a maxim of the reformed school, from which no one, whose opinion carries weight in psychological medicine, whether in America or in Europe, would dissent, that it should be reduced to the lowest possible point, consistent with safety and the good of the patient, and that humanity should dictate the means of repressing, or rather guarding against violence, both as regards their amount and character.

The old system subjected patients, who underwent any medical treatment at all, to a miserable routine, often determined by the season of the year and the phases of the moon, rather than the condition of the patient.

The new does not pretend to possess a universal formula, or to have discovered the Psychologist's stone, but strives to treat each patient according to individual indications.

The old system desired secrecy; the new is not afraid of publicity.

The old system, in short, believed in harshness and darkness; the creed of the new is, "I believe in sweetness and light."

Such are the results achieved for Psychological Medicine.

If this be the Retrospect of the Past, what is the Prospect of the Future? Will the progress of the last forty or the late ninety years be maintained? I trust it will, but one need not be a pessimist to be sensible that the humane treatment of the insane may have its ebb as well as its flow; that so far from its being true that there is a constant and certain tendency to humanity, there is also a strange tendency to relapse into inhuman ways. Vigilance is and always will be required, for if it be allowed to slumber, we but too well know that there is only one direction in which things will go when left to themselves—and that is down hill.

The functions—the mission—of this Association may be regarded from a threefold point of view; first, in relation to Insanity and the Insane; secondly, in relation to its Members; thirdly, in relation to the Public.

I.—Under the first are comprised what in the original rules, drawn up by the founders of this Association forty years ago, were stated to be its objects, namely, "Improvement in the management of Asylums and the treatment of the Insane;" and further, "The acquirement of a more extensive and more correct knowledge of Insanity."

Added to the improved management of asylums is the

necessity now for making appropriate provision for idiots and imbeciles, and their education so far as practicable, grappling at the same time with the problem how best to provide for the mass of incurable pauper patients in the provinces, and the extension of middle-class asylums, and of cottages in connection with the central institution.

There are, of course, various ways in which the welfare of the patients in asylums can be promoted, by the attention directed by the Association to special points of importance. To instance only one, the occupation of patients, including systematic teaching which Dr. Lalor has so successfully developed in the Richmond Asylum, Dublin. Though very much has been done, there is, all, I think, will agree, room for more sustained effort in this direction. "There is one monster in the world—the idle man," are the words of one who has lately passed beyond the reach of praise or blame, which ought ever to be in the minds of those who direct our asylums. It may be that if more were done in future in the spirit of this apothegm of the Sage, if not the Saint, of Chelsea, there would be less chance of patients chewing the cud of bitter reflection and dwelling upon the delusions by which they are haunted and harassed.

In proportion as we feel the inadequacy of our means of cure, we must recognise the necessity of studying the ætiology of Insanity, including that *dammosa hæreditas*, which is the cause of causes in so large a number of the cases coming under our treatment. But what induced the ancestral taint? It behoves us to pay more and more attention to those laws of inheritance in general to which Mr. Hutchinson has recently directed attention in his suggestive lectures at the College of Surgeons.

When M. Baillarger proposed that a similar association to this should be established in France, he gave, among other reasons, the advantage which would accrue from discussing this very question. "Every one," he said, "is assuredly decided upon the influence of heredity in the production of Insanity (Mr. Buckle had not then written); but in this primary question, how many secondary ones there are which remain unsolved." Since he thus wrote, his own countrymen, Morel and Lucas, have, by their researches, advanced our knowledge, and rendered the task of their successors in the same field easier.

Intemperance also, as a cause as distinct from a symptom of insanity, requires to be more thoroughly examined into,

and I am happy to say Dr. Hayes Newington, than whom no one could be better fitted for the task, has prepared a series of questions arranged in a tabular form which has been before the Statistical Committee, and will appear in the Journal.

Again, there remains for the future the continued research into the causal connection between certain mental symptoms or disorders and accompanying lesions of the brain and cord. Dr. Spitzka, of New York, in the Prize Essay which he is about to publish, enters carefully into this enquiry, and I am hopeful that his industry and talent will be rewarded by marked success. These and kindred investigations might no doubt be pursued in a more methodical manner than is always the case in English Asylums. To this end, the appointment of a pathologist, as at Wakefield in our own country and at the Utica Asylum in America, ought to become general.

Clinical teaching in our asylums admits of much greater development, though they may not be able to meet the demands made upon them, should examinations be required in medical psychology by the examining bodies. To-day the student has fortunately a very different position from that which fell to his lot forty years ago. He has at his command means of research then unknown, as the ophthalmoscope and sphygmograph, and all the modern improvements in the microscope and in preparing sections; and can he not experiment on knee jerks, and a host of reflex and electric phenomena never dreamt of by his predecessors? He has, moreover, the stimulus begotten of the sense that enough has been discovered to indicate how much precious treasure lies hidden beneath the ground he now treads, like the gold-digger whose ardour is quickened and labour repaid by the discovery of the minutest particle of the metal of which he is in search.

II. The second relation in which this Association stands, —to its Members—suggests that we must needs be alive to legislation affecting the rights of those who are engaged in this department of medicine. This Association is not a trades-union, but there are various points bearing on their position which have to be considered, as in connection with a Bill like Mr. Dillwyn's, or the matters discussed two years ago at the Annual Meeting, when brought forward by Dr. Murray Lindsay. It is true that for him who has taken Mental Science, in its widest

sense, as his mistress ; for him who has wooed her for her own sake, knowing full well that for him she may hold no dowry in hand or pocket, there is the supreme pleasure arising from study and observation themselves—that recompense, which is better than gold, and more precious than rubies. All this is true ; but none the less the Superintendents of asylums have a right to expect not only that their services shall be adequately remunerated when in harness, but that they may count with certainty upon a fair provision in the evening of life.

III. With regard, thirdly, to the influence of this Association on Public Opinion, we should be strangely faithless to our mission, if we were not the expositors of the principles, in accordance with which the insane ought to be regarded ; if we did not endeavour to enlighten the community in the doctrines of true psychological science, and in that philanthropy which is as far asunder as the poles from the fitful pseudo-philanthropy from which our country is unfortunately not free, the wild, ill-regulated, hysterical clamour with which we are epidemically visited, as injurious to the lunatic as it is to the interests of society at large.

This Association, further, ought to continue to bring before the lawyer what it regards as the just test of criminal responsibility ; to entreat the educator not to defeat the object of his noble profession by exactions which transgress the limits by which Nature has bounded human capacity ; and to warn parents, as Dr. Brigham did in his day with so much zeal, of the dangers to mental health arising from precocious forcing during the early growth of the brain, and with a tenfold greater necessity than when he wrote, in presence of the illimitable folly of examining boards, some of them medical, the members of which have not even the poor excuse of ignorance ; and last, but not least, to counsel the Teacher of Religion against the peculiar dangers which attend his exalted mission, remembering that—

Virtue itself turns vice, being misapplied.

Various, then, are the functions of our Association. But what, asks the late Sir James Stephen, the eloquent writer in the “*Edinburgh*,” is a party, political or religious, without a Review ? and he replies, “*A bell without a clapper.*” Such a bell would this Association have been without its Journal, and it must gratefully attribute much of its success to the ability with which in the first instance Dr. Bucknill,

and subsequently Drs. Robertson, Maudsley, and Clouston, have helped to make an otherwise clapperless bell articulate.

Through this organ of the Association, for which, speaking for my colleague and myself, I would venture to ask your loyal co-operation, much scientific work can be brought before the profession, many questions can be systematically discussed, and the invaluable experience of the Superintendents of Asylums on practical points be presented to its readers, and permanently preserved.

The objects I have mentioned as calling for further attention, and many more, belong to the Future of Psychological Medicine, and as I began my Address with proposing to review the period bounded by the years 1841 and 1881, I will close it with expressing the hope that when a successor of mine in this office reviews the then vanished period between 1881 and 1921, he will be able to report an accelerated ratio of progress compared with that of the time I have attempted, so inadequately, to survey.

And may the Medico-Psychological Association, which I trust will always be identified with this progress, be about to enter, after its wanderings, "forty years long," a land flowing with milk and honey, won by conquests over ignorance, superstition and cruelty—the triumph of the application of humanity and medical science to the relief of mental weakness and suffering.

Complaints by Insane Patients. By J. A. CAMPBELL, M.D.,
F.R.S.E., Medical Superintendent, Garlands Asylum,
Carlisle.*

Most of us are in the active discharge of the duties of medical attendance on the insane, many of us are at the head of large public institutions. We are by the public expected both to be learned, ready and exact. Serious calls are daily made on our knowledge of medicine and surgery, but by many of us I am certain these are much more readily responded to than the calls on our powers of administration and on our judicial functions as guardians and caretakers, as well as the physician and friend of our patient. Now to my mind no one portion of duty is more unpleasant than having to listen to complaints of illtreatment, or even

* Read at the Annual Meeting of the Medico-Psychological Society, held at University College, London, August 2nd, 1881.

negligence and carelessness made by patients, to investigate them, to weigh, balance and decide on the best course of action.

A laxity in paying attention to such complaints is dangerous, while a too ready attention and a disposition to go to the bottom of every trifle encourages the habit of complaining in patients, and often renders the lives of attendants miserable. I have lately had the subject of complaints by insane patients brought prominently before me in one way or another, though but few of the cases occurred in the asylum I superintend. I lately noticed that an attendant was fined in a Scotch Sheriff's Court for assaulting a patient on the sole evidence of this patient, who was stated to be labouring under delusions. The medical evidence stated "that though the patient was the subject of delusions they had no reference to the injuries he had sustained, and that his statement as to how he had come by his fractured rib could be implicitly relied on." This appears at first sight a strong opinion, and though I do not at all question the correctness of the law, the accuracy of the medical opinion, or the justice of the sentence, in this particular case, yet I must confess that I should little like to be sent to trial on the unsupported evidence of a lunatic, and I should less like to be punished.

A case was being investigated by authorities at Garlands Asylum many years ago, in which a patient complained of illtreatment by an attendant, though no marks of any sort or injuries could be detected on the patient's person; the alleged illtreatment had been witnessed by a patient, W. H. My predecessor in office at Garlands, who is alike eminent as a physician and administrator, was asked to give an opinion as to the probable trustworthiness of this patient's account, and he gave as his opinion that the man's mental state would not preclude his giving a correct account of what he witnessed, and he was much astonished at the account given, as well as at the wholesale and incredible statements as regards the asylum officers at large which the patient gave utterance to.

It is well to bear in mind that a patient may be injured in a way and by means that ordinary human prudence and foresight could scarcely avert, also that patients enjoy much more liberty, and that the formerly distinguishing features of asylums are rapidly becoming extinct; that asylums are becoming more and more like comfortable homes, with scarcely

any precautionary devices, and that properly there is an increasing tendency in practice to consider recovery of more moment than mere safe keeping for life, and thus many risks are with knowledge and intention run.

Injuries to patients where the cause is unknown unfortunately occur in asylums, and are the source of anxiety, uneasiness, and suspicion, and the latter at times without any foundation. I briefly mention some of the cases of this nature that have come under my observation.

H. P., who for seven years and a-half was a patient at Garlands, was discharged recovered in 1878, and, so far as I know, has kept well since. She was a violent, mischievous, destructive, and dirty patient for a long time. She had one attendant in charge of her alone. Every care was taken of this patient, yet she often had marks on her body, and that in unusual places. She sometimes was put to bed free of marks, and in the morning was much bruised, and this even at a time when she was improving and reported to be lying quietly at night. I had no reason to think that even the day attendants or the night attendants caused them, but there they often were. The patient recovered, and as I had been much exercised in mind by this case for a long time I often conversed with her, always with a view to getting some clue to her former mysterious bruising. She told me that they were all done by herself, that she used to listen until the night attendant was out of earshot, then climb up her shutter (she slept in a single room on the ground floor), and let herself fall, usually straight, on her back from as great a height as she could get to.

S. K., a well-marked general paralytic, was admitted on the 14th August, 1874, and became gradually more paralysed. On May 8th, 1875, was sent to bed without a bedstead. He was carefully examined by me, and no bruises or injuries were detected. On May 21st, after being thirteen days confined to bed in a single room, as he was not looking well, he was examined, and the fifth rib on right side was found separated from its cartilage. On May 24th he had a congestive attack, and died. During the sixteen days that he had been in the single room he had, though almost completely paralysed, been known to get on his feet, and also to have fallen. He had been rather excitable and rolling about at times. Post-mortem examination verified the diagnosis as to the separation of the rib and cartilage; healthy lungs, with very slight pleural adhesion under the injury, were found. An

inquest was held on the case. I considered that death resulted from general paralysis, and that the dislocation of the rib was not a factor in it. I had no suspicion of rough usage in this case, and I think it most probable that the injury was caused by the patient scrambling to his feet and falling either against the corner of his room or on his breast, with his fist or hand between his rib and the floor.

H. F., æt. 57, had been four years in the asylum, and became so paralysed that he had been for some time confined to bed in a single room without a bedstead, and with a-half shutter up. On May 28th, 1873, was seen lying still in bed as usual; an hour afterwards was found lying opposite the window with his left femur fractured at its lower third; the femur united with some shortening, and he died three years afterwards a general paralytic, whose disease was known to have existed for more than seven years. I believed he had a temporary, but short-lived, recovery of power over his extremities, such as one often notices in this disease, and that he climbed up and fell off the shutter. In both these cases the possibility of external violence by attendants or fellow patients was excluded as far as it is possible in an asylum.

One night as I was going round the asylum with the male head attendant we looked into a single room, just in time to break the fall and probably save the life of a general paralytic, who was just in the act of taking a header off his bed as we opened the door.

By the kindness of Dr. Howden, the well-known and successful physician in charge of the Montrose Asylum, I am enabled to give the facts of the following case which was treated by him.

M. F. was admitted on May 14th, 1869, labouring under violent suicidal mania; exacerbations occurred at the menstrual periods, when she was under the special supervision always of one, often of two or three attendants. At these periods her attempts at suicide were varied and increasing—viz., by strangulation, choking by stuffing throat with pieces of her dress, attempting to cut throat (with blunt knife), to open large vessels of neck with pins, to gouge out her eyes, to bleed herself by biting pieces out of arms. She once produced profuse and dangerous hæmorrhage by tearing her vagina with her hand. She refused food, and when all means failed tried to provoke assaults from patients and attendants by making violent attacks on them. Various drugs were administered without effect. She had to be restrained for four days to allow bite of arm to heal. On September 17th the head attendant observed this patient looking

ill, and called attention to her. Medical examination showed fracture of sternum, and two ribs on left side, the patient either could not or would not tell how the injuries were caused, and no satisfactory evidence could be got as to the cause, the attendant in charge of her stating that she had been violent and throwing herself about. An abscess formed over the sternum, and from first to last a gallon of pus must have been discharged. Double pleurisy and bronchitis set in, but, contrary to expectation, recovery, both bodily and mental, took place, and the patient was discharged on December 11th, 1869. She made the following statement :—" I am quite sure my breastbone was broken by myself. The day I was hurt I got up on the sideboard in the ward, and threw myself down three times; the third time I remember distinctly feeling something crack, and I spat up a quantity of blood, and felt faint and ill just before the head attendant found me looking ill."

Dr. Howden, though at first blaming the attendant in charge for neglect, found that her attention had been momentarily taken off, by separating two patients who were quarrelling, and M. F. had at once taken advantage of this opportunity.

In coming to a decision as to the probable date at which bruises have been caused, one should be most guarded and careful, and also in the expression of opinion. I have for several years carefully noted the appearance of bruises and their changes in the cases that have come under my observation, and have been much struck by the different results of bruising by violence in fat, thin, old, melancholic, and feeble patients. The extent of the bruising is much influenced by the state, age, and general condition. The alterations in colour, the absorption of effused blood, and thickening, is also entirely dependent on this. I have seen a black eye in one case disappear in three or four days, and in another remain little altered for as many weeks. I have noticed a large bed sore form in one night in a patient who had not previously been confined to bed, but whose vitality had been much exhausted by a succession of severe continuous epileptic fits. As a rule though known to us, and recognised as possible, such things are seldom or ever seen outside.

In a very aged patient, whose skin had the parchment appearance often seen in old and feeble cases, the simply holding her hands to prevent her scratching while her face, &c., were being washed against her will, produced black discoloration on the back of her hands.

At the last annual meeting of the British Medical Associa-

tion, Dr. Blandford called attention to "cutaneous discolorations in the insane resembling bruises," the remarks of the asylum physicians present clearly showed that both the state described and its cause were well known. I have noticed this present in an old feeble case, who, though she took milk and fresh meat, had not been taking vegetables. I have known similar cases occur in private, and having at the time of occurrence of this case my attention directed to the subject, I made a rule that the mince meat furnished to the general paralytics at Garland's should have a ration of potatoes mixed with it before it left the kitchen, to prevent carelessness of attendants causing this element in diet from being omitted.

Hæmorrhages may take place from vascular causes without external violence. I saw a black eye occur in a sane patient synchronously with a short loss of consciousness, which was followed by slight partial paralysis, though the patient had not fallen or struck himself.

Unfortunately occasionally, even in the best regulated asylums, where every precaution is taken, where rules for doing most things are carefully drawn up, where medical and other supervision is exercised to a degree, and where the attendants are carefully selected, well paid, and made comfortable, carelessness, negligence, and occasionally loss of temper, occur, and afford grounds for real cause of complaint. I try to instil into the attendants under my rule that they should exercise a direct influence over each other. That one black sheep may do incalculable harm to all. That instead of hiding and excusing offenders, the sooner any practices which are against rules are put a stop to the better for all; and that they must realise their direct responsibility for the safety of their charges, and with a view to this a card containing the prominent features of each admission is furnished to each charge attendant with every new case.

Although it may seem a digression from my subject, I here record what I think a great drawback to the discipline of lunatic asylums. I allude to the admission of imbecile children. Though attendants may fully see the necessity for complying with asylum rules and the provisions of the Lunacy Law as to violence, &c., with reference to adults, yet it is difficult to prevent them giving occasionally what they consider just correction in the case of small mischievous imbeciles. I have within the last eight years summarily discharged two otherwise good male attendants for slapping a

mischievous imbecile boy who ought to have been in some training school, where proper correction could have been judiciously and legally given when really requisite.

Many complaints are distinctly the result of delusions, which very slight examination can demonstrate. I have at present a patient under my charge who persistently tells all visitors in vague and general terms that I illuse him. When closely questioned, however, and asked to particularise the ill-usage, and pressed on this point, he says that I get into his head at night. A female patient complains to me each morning that the female attendants are men in women's clothes, and that they "raped her" during the night. She is over 60 years of age; while A. W., a female private patient, who accidentally injured her arm while a patient here, during all her residence insisted that it had been broken by Dr. Macleod, the assistant medical superintendent, which, I need scarcely say, was not the case; and some years after she had left this, when seen by him in a private asylum, she still asseverated to him that he had broken her arm.

Patients often take a dislike to one attendant, and, even if he merely does his necessary duty by them, find cause of complaint. I usually find it advisable to shift such cases to another ward, and have often given a patient a round of the asylum without finding him much better pleased.

Again one finds cases who seem to have making charges and complaints as a part of their disease. I had, for several years, a patient of this sort under my care; he had been a railway guard, was fairly educated, plausible, and well mannered when he chose. He had alternate attacks of depression (when he had to be fed with the tube) and excitement, in the intervals he took an active interest in all that went on, kept what he called "Tallies" of every one, and everything, wrote voluminous letters to the Visiting Committee, reported the attendants to the head attendant, the head attendant to me, my doings and omissions to the Justices at their visits to the wards. Wrote fairly sensible letters to the Commissioners in Lunacy, and occasionally wrote about the two latter bodies to the Lord Chancellor and the Home Secretary. He used to exercise great ingenuity, and take great trouble in getting up his complaints. I have known him hoard and hide little pieces of meat from his dinner for long till he got a smelling little parcel, then put it under a mattress, and report that the attendants neglected their duty in looking after the bedding, lead me into his

dormitory (if a stranger or Visiting Justice was present so much the better) turn up the bed and show it as proof. He seemed to exercise all that was left of a once intelligent mind in such pursuits, and from practice he laid down his complaints so well that I am certain he often convinced strangers that there was much truth in his allegations, and that he himself was a very illused man.

It is sufficient merely to notice that complaints of all sorts are made by females labouring under hysteric forms of insanity that the object is gained if notoriety is obtained, if they receive attention, especially male attention. The subject is so well known that it is unnecessary to discuss it.

Frequently false impressions are received by patients on admission, and during the first few days of their residence in an asylum, owing to the faulty state of their perceptive and also their reasoning faculties, impressions which frequently remain for long, and almost amount to delusions. Occasionally the result of such a state gives rise to feelings that they have been illused, on, and immediately after admission. I just note the following:—H. J., a well educated governess, was admitted into Garlands in a state in which stupor alternated with excitement. She had been without food for four days. I tried, unsuccessfully, to get her to take food after she was examined, and then fed her with the tube. She rapidly improved, took food herself, and became rational. One evening, a month after her admission, I was sitting talking to her at a dance, when she told me that she had always been well used except the first day she came in, but that then she had been cruelly treated, that she was not allowed to take food herself, and that it had been pumped into her by a great, tall, rough man. She would not believe me when I told her that I fed her, and that all means had been tried to get her to take food before forcible feeding was resorted to. A clergyman, who came in acutely excited, told me when he got better that, during the first few days of his residence all the inmates of the ward he was in appeared to him to have a short leg and a long one. And a patient's description of two round holes in a shutter in the padded room, which he conjured into the eyes of a demon, his imagination filling in the face, determined me in fully admitting light where practical to secluded maniacal patients.

The complaints made by Mrs. Petchler in regard to her treatment at the Macclesfield Asylum, which were in-

vestigated with great care and attention by the two Commissioners in Lunacy, whose enquiry occupied four days, and was conducted in the fullest manner possible, with the result that the Commissioners* “were satisfied, from the evidence given before them, that Mrs. Petchler was insane at the time of her admission, and was a proper subject for care and treatment in an asylum, that the charges preferred by her had not been substantiated,” &c., were most probably the result of faulty perceptions, and a too early discharge.

As regards complaints of personal violence, the invariable rule at Garlands is at once to have the patient stripped and examined; if a man he is seen naked, his ribs felt, and his chest examined; if a female her body is looked over by the head attendant, and her chest only examined by the medical officer if no marks are noticed. I had a patient, M. S., who for some time complained of having been beaten every day, and so far as I could make out, without cause, as she never had a mark on her; but she gave it up owing to the trouble it involved to herself in dressing and undressing. A personal examination ensures the safety of the patient, and necessitates care and accuracy in reporting of injuries by attendants as they soon know that such matters cannot be hidden.

Complaints of illtreatment by epileptics, after a series of fits, are most common. They are usually grounded on soreness from the fit, or from straining in the violent excitement which frequently precedes or follows it. So far as my experience goes the northern epileptics are more excitable, violent, and dangerous than those in the Midland Counties and the South. Epileptic excitement is the cause of nearly all the seclusion at Garlands. In several cases at present under my care each attack of excitement brings a strong accusation against usually one, sometimes two attendants. I shortly sketch the most prominent case of this sort that I have had or have. A. P., an epileptic of many years' duration, while free of fits is a capital tradesman, has done most of the painting in the Asylum during the last few years but when he takes fits becomes most excited, and always requires seclusion for his own safety and that of others. After the attack begins to subside he remains moody, irritable, and suspicious, and usually tells a pretty circumstantial tale about some attendant, and attributes his attack to the way

* 28th Report of Commissioners in Lunacy.

in which he was illused. I have more than once shifted him from ward to ward when he accused an attendant, and afterwards, when he got over the attack, he has, on more than one occasion, told me that he scarcely recollects about accusing any one, that he had not been roughly handled; at times he won't believe that he made any charges.

Last year the visit of the Commissioners took place the day of the Psychological Meeting. I was absent from the Asylum. The patient, A. P., was just getting over an attack such as I describe, and the following entry appears in the report:—"and gave special attention to an epileptic reported to be at times violent, who complained that an attendant, O. T., had twisted his arm on a particular occasion, he called other patients to confirm his testimony; but though it was not corroborated, we think there was some truth in the statement." The patient told me afterwards that the attendant had not used him roughly.

I briefly summarise the foregoing as follows:—

That tact, experience, and sagacity are necessary to distinguish between the complaints that should be thoroughly sifted, and those that should be listened to and made light of.

That complaints of personal violence should be thoroughly enquired into, and that an examination of the person of complainant is the surest and most reliable mode of arriving at facts.

That evidence of violence by bruises as shown by extent, colour changes and disappearance of ecchymosis is much modified by the nervous state, age, and condition as to fatness of the patient, and this, to an extent, scarcely to be credited by those who have not had good opportunities for observing it.

That "cutaneous discolourations in the insane resembling bruises," as pointed out by Dr. Blandford, are well recognised.

That occasionally, but comparatively rarely, ecchymosis true, and not to be distinguished from the result of violence, occurs from disease of vessels.

That the complaints of patients may be well founded.

That patients, however, frequently make false charges.

1st. The result of ill-feeling to one attendant or official.

2nd. The result of general ill-feeling to those looking after and detaining them.

3rd. The result of delusions.

4th. From an hysteric state, love of notoriety, and medical attention.

5th. The result of a confused state during the early part of the attack when perception is impaired.

6th. The result of combined soreness after an epileptic fit or fits, and the confused state described above.

The question of accepting the evidence of an insane patient on oath is a difficult one. That certain patients are quite capable of giving trustworthy evidence is undoubted ; but the evidence of a patient who labours under delusions should not be accepted as of equal value with that given by a sane man, though certain weight might fairly be attached to such evidence in corroboration of other evidence, and given merely as a statement. I have attempted to deal with this subject in a calm, judicial manner, simply putting the matter in its different aspects before you, and quoting a few cases which seemed specially applicable to the points under consideration.

Happily for me, during 15 years of asylum experience, I have had a comparative exemption both from complaints, which were thoroughly founded, as also from those without any real foundation, the latter of which must at times, from the manner in which they are promulgated, taken up by the credulous, increased in importance, and heightened in detail, prove almost as unpleasant as if grounded on truth.

I believe that the vast majority of the relatives and friends of the poorer insane know and appreciate the care that is bestowed on their relatives. On their visits they judge more by the patient's appearance than by what he says.

The chief value, if value there be in this communication, will be in the discussion, which, I trust, it will give rise to, and the large, no doubt, differing, but yet valuable expression of opinion that will be elicited from those of long and varied experience, especially from the medical officers of those enormous asylums which now abound in many of our English counties, who, if they give much consideration to this portion of their duties, must necessarily have much valuable time taken up by it.

On the Early Phases of Mental Disorder, and their Treatment.
By W. B. KESTEVEN, M.D., St. And., F.R.C.S., Eng.

(Concluded from page 194.)

The hallucinations of the senses in the insane resemble the voluntarily induced semi-consciousness of the mesmerised. In the mesmeric trance there is the disregard of external agencies that is seen in the maniac who, regardless of suggestions from without, carries out his own wild train of thought in apparent unconsciousness of what is going on around him, or even memory of what has occurred to him, after the trance or the paroxysm has passed away—and so in sleep, dreams prove an active state of the cerebral centres, although no recollection of them may remain on awaking. Sleep has been likened to temporary death, and so dreaming may be compared to temporary insanity. The insane man walks about in a waking dream; he is a veritable somnambulist. The somnambulist, like the maniac, or the ecstatic, has but a confused recollection, or no remembrance at all of what has occurred in the attack of mental disorder, or in their perilous sleeping performances, like Fakirs in their trance-like condition, they become insensible to external influences.

The subject of hypnotic, spiritualistic, or mesmeric trance is on the borderland of insanity; he yields his will to the power of a will stronger than his own, and by a repetition of such proceeding weakens that endowment until it loses all power over his actions.* Such abandonment of volition and attention is wholly different from the power of mental abstraction, which most persons are able voluntarily to bring about.

Dr. Maudsley has pointed out that a feature in dreaming, in which it approaches insanity, is the singularly rapid and vivid reproduction in dreams of things which have long since passed away, and of which in the waking state there is no recollection whatever. In like manner in mania we have the same condition presented occasionally when we meet with carefully educated, refined, and delicate women giving utterance to obscene or blasphemous language. The explanation hereof is that on the first hearing of such language, probably from some coarse spoken low-bred rough,

* *Vide* "Artificial Insanity," by Dr. Hack Tuke, *Journal*, 1866.

the sound and the sense have at the moment shocked the sensitive mind, but have passed out of memory for the time, to be reproduced when the normal mental powers are in abeyance, or in disorder.

The study of the early phases of insanity would be incomplete without some consideration of what may be regarded as its causes.

Of these the most influential is hereditary predisposition ; its share as the primary factor in the causation of unsoundness of mind had scarcely been duly recognised until of late. It is an element of the disease which, moreover, is very commonly suppressed by the friends of the patient. Most unjust and injurious is the prevalent notion that a stigma attaches to the occurrence of a case of insanity in a family. The only shadow of justification for such opinions lies in the fact that the existence of insanity is an indication of a degeneracy of the structure of the brain, which may be transmitted from generation to generation.

If to a pre-existing hereditary tendency to neurotic disorders, there be superadded a course of vicious indulgence of any kind, the mind is still more prone to be thrown off its balance. To no class of persons is intemperance more dangerous than to those inheriting a morbid nervous diathesis. The two act and re-act one upon the other. The drunkard's craving for drink may, in some degree, be hereditary. By yielding thereto it soon becomes irresistible, until, pitiful is it to behold, "the thirst of the drunkard," as George Macdonald forcibly puts it, becomes "more of the soul than the body." This degeneracy of body and mind transmissible by hereditary descent, produces not only a generation of drunkards, but a progeny, numbering among them the idiot, the dull, the imbecile, the criminal. It is well known how hard it is sometimes to distinguish between madness and crime. There are on the one hand criminals whose inconsistent conduct leave it doubtful whether their destination should be to the asylum or to the gaol ; on the other hand there are undoubtedly insane individuals, whose tendencies are so vicious and criminal, that one cannot but consider prison discipline as their best remedial treatment. The inheritance of these evil tendencies was strikingly exhibited in the history of a family, reported by Miss Schuyler, President of the New York States Charity Aid Society ("New York Times," March 8th, 1878). Margaret, the "mother of criminals," left behind her "a long train of

diseases, weakness, bad habits, corrupt and morbid passions, physical and moral degeneracy, and open crimes, which can never be measured by human eye. The female children of the line became mothers, in their teens, of illegitimate children; the boys were thieves and vagrants, as by a law of nature, as soon as they could exercise any activity. . . . The children grew up in nurseries of crime, and became, of course, paupers or worse. The stronger and bolder lived by thieving, or committed burglary, robbery, and murder. Crime and indulgence gradually caused the degeneracy of some, and they became epileptics, lunatics, and idiots. . . . Some of this miserable breed reached the age of ninety years, and some of the women had at least twenty children. The stock of this race of criminals was preserved by intermarriage with fresh and vigorous families of ruffians. The total number of the race was seven hundred, mainly paupers, beggars, prostitutes, and criminals."

The epileptic constitution is one prone to insanity, and that of a very grave character; as a possible cause, therefore, of mental disorder, the treatment of epilepsy assumes a character of urgent importance. It is for the most part, in epileptic insanity that the sudden, and apparently unaccountable sudden, homicidal and suicidal catastrophes occur. Of nearly two thousand suicides, Dr. Crichton Browne tells us that three-fourths have been preceded by affections of the nervous system—many of which doubtless, had they been daily regarded, might not have culminated in such a fearful end.

It is not intended, by what is here said, to countenance the opinion that crime is disease. Such doctrines destroy all belief in moral responsibility before God and man, and strike at the root of social order. It is, beyond cavil that the seeds of great crimes have shown signs of vitality early in life, and moreover that their growth might have been checked by judicious management.

Want of moral control is often the source both of crime and of insanity, and has terminated in heinous and brutal crime. More than two thousand years ago, the Wise Man said, "Above all keeping, keep thy heart, for out of it are the issues of life"—and, we may add, the issues also of death—death both psychical and somatic.

The same opinion is expressed by Dr. Maudsley, in the following remarks:—"How far is a man responsible for going mad? This is a question which has not been much con-

sidered, yet it is one worthy of deep consideration ; for it is certain that a man has, or might have, some power over himself to prevent insanity. However it be brought about, it is the dethronement of will, the loss of the power of coordinating the ideas and the feelings ; and in the wise development of the control of the will over the thoughts and feelings, there is a power in ourselves which makes strongly for sanity."*

The condition of the nervous system known by the indefinite name of Hysteria, with its essential element of feebleness of will, is that in which we meet with the early or inchoate forms of mental disease. It is that, moreover, in which we look for imitations of disease, mental and bodily. Hysteria will perform all sorts of freaks, feigning insanity, paralysis and many other maladies. The dominant feature of hysteria is, as just observed, feebleness of will. This renders its subject an easy dupe of the stronger will, while disabling it from resisting or overcoming subjective influences. In an "hysterical paroxysm" the power of the will is in abeyance, while consciousness is not entirely annulled, so that the patient without power to help herself, may, to a great extent, know all that is going on around her. We may understand therefore in some measure how it may come about that hysteria shall pass into insanity. It is not meant hereby, to imply that every hysterical girl is specially prone to become insane, but that hysteria, if not subdued, is prone to carry the patient into the border-land of insanity. Moral control is lost or diminished; there exists in fact a moral twist; fancy runs riot; the judgment no longer exercises its supremacy; the love of exaggeration grows strong, deceit and imposition become habitual; albeit perhaps unconsciously the girl allows herself in evil speaking, lying, and slandering—ere long ceasing to be able to keep her hands from picking and stealing; with singular inconsistency accumulating pelf for no purpose, and giving it away in an equally purposeless manner. Here again we are on the border-land of insanity, and here it behoves us to exercise the utmost discretion in distinguishing purely vicious tendencies from moral insanity; the assumption of the latter is, however, not to be admitted without other proof of madness than simple badness.

In the present day a very frequent cause of hysterical derangement, as has been pointed out in the daily journals,

* "Responsibility in Mental Disease," p. 268.

is the strain put upon the minds of girls, by high pressure education, with its attendant competitive examinations. Girls are kept on the stretch of hard brain work for many hours together, with scant leisure for meals or rest, and little, if any, for recreation. Boys, it is urged, have happily a counterpoise to their work, in healthy athletic sports, although it not unfrequently happens that the minds of young men are overstrained through the wide range of their studies, and the severity of examinations.

An amusing illustration of this part of our subject is given in Dr. Hack Tuke's book "Insanity, and its Prevention," in some verses by a young lady, depicting the condition of the pupils in expectation of an examination.

A distinction is to be drawn between hysterical disorder, bordering upon mental unsoundness, in which there is, as it were, only a moral twist—a merely temporary and functional derangement of the brain, and those cases in which the brain structure has suffered such lesion as to render it rather more than doubtful whether it will ever recover its integrity. In the former the manifestations of disorder are of a purely metaphysical nature, and amenable to moral and hygienic means of treatment.

The love of money, and its inordinate pursuit, is not to be overlooked as a potent predisposing cause of insanity. There is a condition not seldom met with which may be designated "Money on the Brain." This condition is emphatically perilous where it has been attended with success in life. The retirement from business and its consequent *ennui* in such cases are attended with imminent risk of imbecility, or despondency. We have known several examples of this *golden* form of dementia, and death.

The measures to be adopted for the arrest of early indications of mental disease are very simple, but require to be carried out long, firmly, and consistently. They may be comprised under a few heads:—*e.g.*, separation from former associations; bodily exercise and hygiene; recreation of active character; cultivation of the intellect within reasonable limits; and, above all, moral control.

By the first and most important of these measures, separation from former associations, the patient is no longer subjected to misjudged sympathy of relatives whence their morbid fancies have been fostered and intensified in the

presence of others of like family proclivities. The thoughts are diverted into new channels, the patient ceasing to be the centre of all care and anxiety; morbid fancies are forgotten, interest arises in surrounding pursuits and amusements. Thus the mind gains strength, and a bright prospect of a life of usefulness is opened up where the future had seemed to threaten only unhappiness and gloom. Separation from old associations being effected, other measures follow in course, and are more efficiently carried out. It is, however, essentially and vitally important that the step should be taken as early as possible after the first observation of impending disorder; every week of delay tends to fix the hold of disease, and rivet the chains by which the mind may come to be held in thralldom. A disease of mind it is with which we have to deal, and not a sin to be punished, a truculent obliquity, to be shunned with dread; such, however, would almost seem to be the opinion of many persons who, in this nineteenth century, avoid the insane as they would the infected.

Great indeed, is the labour and the patience required; greater still is the reward in the attainment of success under the effort to restore moral control, to check impending mental disease, to see clouds and darkness of despondency disperse, giving way for the bright sunshine of hope and life revived. Such emotions are well depicted in the following appropriate and graceful metaphorical sketch. "He who has explored those mysterious solitudes of the earth, the caverns in Derbyshire, may remember, perhaps, a sense of oppression, ever increasing as he descends deeper and deeper into those gloomy regions. The faint light of his conductor would show him that he was indeed passing through a dismal solitude; and he might well say, in the language of Scripture, 'I went down to the bottoms of the mountains; the earth with her bars was about me for ever!' The rush and hollow sound of waters as they fall around him into deeper caverns still, might well occasion him to feel that chaos surrounded him, and that he was cast out and forsaken! when suddenly, as if by magic, a crown of light is raised up into the solitudes above! All is changed in a moment. The eye turns with instinctive fondness to those glowing stars; what appeared the chamber of death is changed into a glittering room; the terrific fall of waters become a beautiful cascade; chaos seems to have departed, and hope returns. Such as those beautiful lights are to the adventurer, the associations

and the *effects* of nature's gifts are upon the sick and ill at ease; indeed far more; for no temporary gloom can equal the shadow cast upon the mind of him whose nervous system is distressed, and nothing can seem so bright as the associations and sensations of returning health."*

Some Observations on the State of Society, Past and Present, in Relation to Criminal Psychology. By DAVID NICOLSON, M.D., Deputy Superintendent State Criminal Lunatic Asylum, Broadmoor.

Four centuries ago, by his celebrated Bull proclaiming death without mercy against witches, sorcerers, and all dealers with Satan, Pope Innocent VIII. plunged Europe into a state of social distraction and delirium. One half of the people were said to be bewitching or bewitched. The crime of witchcraft or devil-dealing—a token of heresy—was held to be the precursor of antichrist, and there was no lack of propitiatory sacrifice. "The seats destined for criminals in our courts of justice are blackened with persons accused of this guilt. There are not judges enough to try them. Our dungeons are gorged with them. No day passes that we do not render our tribunals bloody by the dooms which we pronounce, or in which we do not return to our house discountenanced and terrified at the horrible words we have heard. And the devil is accounted so good a master that we cannot commit so great a number of his slaves to the flames but what there shall arise from their ashes a sufficient number to supply their place." So says Florimond, the historical mouthpiece of the time. In Germany they burned them at the rate of 500 a year, bringing the total for the whole period of persecution for witchcraft up to more than 100,000 human beings. It is said that in France, about the year 1520, fires for the execution of witches blazed in every town. People had to be busy smelling Satan in others lest they themselves should be suspected and taken in hand.

In this sixteenth century it was that the dormant and hitherto submissive intellect of Europe began to bestir itself, and to make itself felt as a real power. The bubble of ignorance and superstition had been blown to the full. It burst. Not only were the prestige and tradition of the

* "Remarks on Insanity," Dr. Henry Monro, 1851, p. 113.

Church of Rome set at nought, but her authority and dogma were repudiated. "The Reformation" took on its specific character, and a liberty of scriptural interpretation and of religious opinion was sought to be established. In the storm and clash of creed that ensued social life was convulsed; the people went "off their heads;" they were wild with excitement; they were paralysed by fear. Superstitious ignorance, a belief in witchcraft, and fanaticism were rampant. The hysterical and frenzied spirit of the age was reflected in individuals. There was no such happy lot for any one as to be at once safe and sound. On the one hand, the "evil eye" was everywhere seen, and appears to have had a busy time of it; on the other, convulsions, mental as well as physical, prevailed abundantly. As a matter of cause and effect, the relations of the "evil eye" and the convulsions to each other doubtless varied in different cases, but when either of the two became the subject of inquisitorial investigation there was but one common result—*death*, either by suicide or at the stake.

Pope and presbyter alike, in the fulness of their religious fervour, resorted to torture and the faggot. While the inquisitors of Spain were racking their victims by untold tortures, the reverend ministers of the Scotch kirk were busily engaged, amid the thunderings of a "reformed" pulpit ("drum ecclesiastic"), in pricking for the devil's mark, and in thrusting long pins of wire into the heads of suspected parishioners.

Under such circumstances it is not surprising that it is to the *criminal* records of this period that we have to go if we would find out anything about the *insanity* of those fated to live in such times.

I intend to try, with the aid of such records as I have at hand, to identify, and in some measure to isolate from among the social phenomena of a bygone age, some illustrations in practical psychology.

These illustrations, when thus strung together, will have something of an antiquarian interest, and they may be made to serve a useful purpose with regard to the consideration of the footing upon which insanity—and especially insanity in its criminal relations—is placed in modern times.

In "sober England," witchcraft was not by law declared to be a crime of the highest magnitude until the statute of Queen Elizabeth in 1562. The law had not hitherto looked upon witchcraft as penal in itself, and only condemned to

death those who, by means of spells, incantations, or contracts with the devil, attempted the lives of their neighbours. It is most difficult, not to say impossible, for us, in our day, to realize in our minds what could have been the state of a society in which absolute ignorance and credulity formed the groundwork for the institution of capital offences by legislative enactment. But, given the belief in witchcraft and similar agencies, the extravagance resorted to in trying to put them down can be understood to follow as a natural sequence.

The Church gave its full sanction to the belief; and the Church and the law were hand and glove in the matter. Bishop Jewel, preaching before Queen Elizabeth in 1558, spake thus: "It may please your Grace to understand that witches and sorcerers within these last four years are marvellously increased within this your Grace's realm. Your Grace's subjects pine away even unto the death; their colour fadeth—their flesh rotteth—their speech is benumbed, their senses are bereft! I pray God they may never practice *further than upon the subject!* These eyes," said his lordship, "have seen most evident and manifest marks of their wickedness." (Strype). Here let it be noted that, on the Bishop's testimony, wasting, paralysis, and insanity resulted from the machinations of these social plagues. The Queen suffered from toothache, and "magic" was suspected to be the cause. Mason, in his "*Anatomie of Sorcerie*" (1612), says, "That such anters and charmers doe worke great marvelles; as, namely, in causing of sicknesse, and also in curing diseases in men's bodies. And likewise binding some that they cannot use their natural powers and faculties as we see in night spells. Insomuch as some of them doe take in hand to bind the divell himself by their inchantments."

In March, 1618, the two daughters of one Joan Flower were executed at Lincoln for having brought about the death of two sons of the Earl of Rutland, for having induced fits in a daughter, as well as for having so bewitched the Earl and his Countess that they should have no more children.* The Flower family had incurred the ill-will of the Countess; hence a motive for their vengeance.

In 1664, Sir Matthew Hale (Chief Baron), condemned two women, named Amy Duny and Rose Cullender, to the stake at St. Edmondsbury upon evidence the most ridiculous.† These

* Hone's "Every Day Book," vol. ii, p. 372.

† For this account *vide* Mackay's, "Popular Delusions."

two old women, whose ugliness gave their neighbours the first idea that they were witches, went to a shop to purchase herrings, and were refused. Indignant at the prejudice against them, they were not sparing of their abuse. Shortly afterwards the daughter of the herring dealer fell sick, and a cry was raised that she was bewitched by the old women who had been refused the herrings. This girl was subject to epileptic fits. To discover the guilt of Amy Duny and Rose Cullender, the girl's eyes were blinded closely with a shawl, and the witches were commanded to touch her. They did so, and she was immediately seized with a fit. Upon this evidence they were sent to prison. The girl was afterwards touched by an indifferent person, and the force of her imagination was so great, that, thinking it was again the witches, she fell down in a violent fit as before. This, however, was not received in favour of the accused. The father, in his evidence, said that his child had in the intervals of her fits constantly cried out that the two women named appeared to her and frightened and tormented her. Another daughter suffered in the same manner, and their fits were so strange that they could not force open their mouths without the use of a tap. On one occasion, the younger sister, after a fit, said that Amy Duny had been with her and tempted her to drown herself, or cut her throat, or otherwise destroy herself. To make a long story short, both women were found guilty upon all the indictments, thirteen in number, and hanged.

In summing up the evidence, Sir Matthew Hale told the jury there were two things they had to inquire into. First, whether or not these children were bewitched: secondly, whether these women did bewitch them. He said he did not in the least doubt there were witches: first, because the Scriptures affirmed it; secondly, because the wisdom of all nations, particularly our own, had provided laws against witchcraft, which implied their belief of such a crime.

The full account of this case shows clearly that the fish-monger's daughters were epileptic, and that they suffered from hallucinations both of sight and hearing. Yet the more the evidence went to show the unsound condition of their mind, the more were their insane ravings taken to establish the guilt of the accused. Sir Thomas Browne, a man of "light and leading" in those times, was examined as an expert at the trial, and he stated that he was clearly of opinion that the girls were bewitched. He thought, in such cases, the devil acted upon human bodies by natural means,

namely, by exciting and stirring up the superabundant humours; and he assumed further, that in this case, the subtlety of the devil co-operated with the malice of these witches. This worthy wrote a book about that time, called the "Religio Medici." In this work, says Buckle,* "there is shown a credulity that must have secured the sympathy of those classes which were then dominant. Of all the prejudices which at that time were deemed an essential part of the popular creed, there was not one which Browne ventured to deny. He announces his belief in the philosopher's stone; in spirits and tutelary angels, and in palmistry. He not only peremptorily affirms the reality of witches, but he says that those who deny their existence are not merely infidels, but atheists. He carefully tells us that he reckons his nativity not from his birth, but from his baptism; for before he was baptised he could not be said to exist. To these touches of wisdom he moreover adds, that the more improbable any proposition is, the greater his willingness to assent to it; but that when a thing is actually impossible, he is on that very account prepared to believe it."

Thus it was, that in England at this time, churchmen, lawyers, and philosophers, and, according to Burton, "physitians" too, were found to accept and to teach the all-prevailing creed about witches and witchcraft.

Burton, in his "Anatomy of Melancholy," speaking of witches, magicians, &c., says, "they can cure and cause most diseases to such as they love or hate, and this of melancholy among the rest. . . . Ruland gives an instance of one David Helde, a young man, who by eating cakes, which a witch gave him, *mox delirare cepit*, began to dote on a sudden, and was instantly madd; F. H. D., in Hildesheim, consulted about a melancholy man, thought his disease was partly magical, and partly natural, because he vomited pieces of iron and lead, and speake such languages as he had never beene taught."

In Scotland, the ministers of the Kirk were busy with Calvinistic thunderings and horrible denunciations from the pulpit. Some of their references to the state of things in hell are enough to make the blood run cold; and when drummed unceasingly into the ears of even a sober-minded audience, could not fail to induce melancholy, religious mania, and suicide. "Scorched," says one, "in hellfire, and

* "History of Civilization in England," vol. i, p. 365.

hearing the howling of their fellow prisoners, and see the ugly devils, the bloody scorpions with which Satan lasheth miserable souls." "See the poor wretches," says another, "lying in bundles, boiling eternally in that stream of brimstone." Again, "while worms are sporting with thy bones, the devils shall make pastime of thy paines." The following is an extract from Rutherford, the most popular of the Scotch divines of the seventeenth century, "Oh !! hee lieth down, and hell beddeth with him; hee sleepeth, and hell and hee dreame together; hee riseth, and hell goeth to the fields with him: hee goes to his garden, there is hell. . . . The man goes to his table, O! hee dare not eat, hee hath no right to the creature; to eat is sin and hell: so hell is in every dish. To live is sinne, hee would faine chuse strangling; every act of breathing is sin and hell. Hee goes to church, there is a dog as great as a mountaine before his eye: Here be terrors." Listen to what Marion Laird, of Greenock, says after a sermon couched in language of this sort, in 1740.

Now I saw myself to be a condemned criminal; but I knew not the day of my execution. I thought there was nothing between me and hell, but the brittle thread of natural life. . . . And in this dreadful confusion I durst not sleep, lest I had awakened in everlasting flames. . . . And satan violently assaulted me to take away my own life; he presented to me a knife therewith to do it; no person being in the house but myself. The enemy pursued me so close that I could not endure so much as to see the knife in my sight, but laid it away. . . . One evening as I was upon the street, satan violently assaulted me to go into the sea and drown myself: it would be the easiest death. Such a fear of satan then fell upon me, as made my joints to shake, so that it was much for me to walk home; and when I came to the door I found nobody within; I was afraid to go into the house lest satan should get power over me.

The cant and intolerance of the Calvinistic code of life and morals were maintained by the position which the Scotch ministers felt it necessary to secure for themselves as inquisitors and administrators of the law. "The Presbyterian clergy, in matters of scandal and of witchcraft, arrogated to themselves the office of public prosecutors, of inquisitors general, and, so late as the year 1720, the ministers, *in behalf of themselves and their kirk sessions*, publicly exercised this office in our Courts of Justice." *

* Arnot's "Criminal Trials." Glasgow, 1812; p. 349.

Having dared to travel on the Sabbath day, and the fact having come to the ears of the Kirk Session of Aberdeen, William Kinneir was cited to appear before that august and holy body. William was honest enough to confess that, in order to save his credit, he had set out on Sunday to accomplish a long journey. "He was sharpelie admonished, and promist never to doe the lyke again." They had an easy way of settling "women's rights" in those days. In the Records of the Kirk Session of Perth is the following entry: "Forasmeikle as dilatation (talk) being made, that Janet Watson holds an house by herself where she may give occasion of slander, therefore Patrick Pitcairn, elder, is ordained to admonish her in the Session's name, either to marry or then (else) pass to service, otherwise that she will not be suffered to dwell by herself."

In 1650 it was read and publicly intimated in all the kirks in Edinburgh that for the "downbearing of sin" women were not allowed to act as waiters in taverns, but only men-servants and boys. "The great object in life was, to be in a state of constant affliction," says Buckle, in his *History of Civilization*, and the following illustration of this doctrine from Gray's "Great and Precious Promises," would seem to suggest that *our* Mark Twain possessed a copy of that interesting volume! "I think," says Gray, "David had never so sweet a time as then, when he was pursued as a partridge by his son Absalom."

The Rev. Mr. Lyon (in his "History of St. Andrew's") mentions that some of the Scotch clergy, in drawing up regulations for the government of a colony, inserted the following clause:—"No husband shall kiss his wife, and no mother shall kiss her child, on the Sabbath day."

Emancipated from the domination and superstition of the Romish priesthood, the Scotch fell under the sway of an ascetic terrorism so impious and unnatural, that, as Chambers says (*Domestic Annals of Scotland*), "the whole sunshine of life was, as it were, squeezed out of the community." "Men" (says Buckle), "in their daily actions, and in their very looks, became troubled, melancholy and ascetic. Their countenance was soured, and was downcast. Not only their opinions, but their gait, their demeanour, their voice, their general aspect, were influenced by that deadly blight which nipped all that was genial and warm."

"The criminal records of a country are an historical monument of the ideas of a people, of their manners and

jurisprudence; and in the days of ignorance and barbarism they exhibit a striking but hideous picture of human nature. The records of Scotland, in particular, present such a frequent display of the extravagance of the human mind as amuses the fancy after the wearisome detail of form and the disgusting representation of guilt." These are the opening words of Hugh Arnot, advocate, in the preface to his "*Celebrated Criminal Trials*" in Scotland (Glasgow, 1812). From that interesting work I propose to transcribe the records of trials, some of which have not, so far as I know, found place in the literature of medical psychology. The sketchy notice that I have given of some features in the social and domestic life of the 17th century may help us to form a more just appreciation of the psychological value of the class of cases with which I am dealing. All these cases have reference to states of mind which we cannot but regard as being more or less anomalous, the variation extending from states which are vicious or criminal on the one hand to states which are morbid or insane on the other. The deviation from what we would, speaking roughly, call a normal standard of mind, will be found to exist not merely in individuals, but also in communities.

I must not be taken as implying that a mere *belief* in witchcraft is an evidence of insanity—that subject I shall enter upon later on. But when, for instance, we look at the recognised tests of guilt in cases of alleged witchcraft, we cannot help feeling that there was something warped, something wrong, something sometimes inhuman in the cast of mind of the commissioners, inquisitors and others entrusted with the administration of the law. What a heads-I-win-tails-you-lose sort of justice in the water-test where, if the suspected person when placed upon the water sank, she was drowned; if she floated, she was held to be guilty, and promptly executed!

But whatever the psychological peculiarities of the Commissioners, inquisitors, Kirk Sessions, and communities generally may have been, we must, at all events, start with them as the practical outcome of the mental life of the period. The people of the time had to carry out the law of the time, just as it is our duty in our time to carry out, so far as we can, the law as it now is. It is not for us in such matters to judge the people of a bypast age by our standard any more than it is for us to estimate ourselves by what we believe or know to have been their standard. If it was an essential part of their accepted creed to believe

in witchcraft, and if they said that those who did not accept this belief were heretics and atheists, and deserved death, it is not for us who do not believe in witchcraft to say that believers in witchcraft are insane, and ought to be locked up in asylums, any more than it is for us to say that whoever believes in supernatural agency is insane, and ought to be so locked up. There are sane as well as insane who believe in witchcraft, just as there are insane as well as sane who do not believe in witchcraft. The belief in witchcraft is not the measure of sanity or of insanity; nor yet is the belief in supernatural agency in any form.

In the study of criminal trials, such as those with which we are at present concerned, we are brought face to face with the social phenomena of the time being in all their bearings, and, in the cases here given, there will always be found something of psychological interest, either as regards the domestic and other concerns of the community, or as regards individuals prosecuted or individuals prosecuting. The evidence, where given, will throw light upon the different ways that people had of looking upon their relationships, and of interpreting the circumstances taking place around them. Sometimes the eccentric or insane appearance or conduct of the individual will be found to have given rise to an accusation founded upon a *bonâ fide* belief in the individual's actual or potential guilt. Sometimes the insanity will reveal itself in the wild and ecstatic utterances of the individual at whose instigation, or upon whose evidence, a charge is sustained against a reputable and unoffending neighbour. Sometimes the mixture of hysteria or epilepsy with a malicious or criminal disposition will mask the real character of the case, and give, as in any form of criminal charge, grounds for the expression of honest though contradictory opinion on the two sides.

The cases which follow are from Arnot's work, and I give them almost *verbatim*, without, for the present at least, commenting on them.

The records and the commentary of the author—who, be it remembered, was a lawyer—speak for themselves; but it will be well, perhaps, in reading through the cases, to keep before the mind—

1. The presence of delusion, hallucination, indications of paralysis, &c.

(a) In the person or persons accused.

(b) In the person or persons accusing, or in witnesses.

2. The amount of self-accusation or confession in the accused.

3. The weak, ridiculous, and impossible nature of charges made in the indictments.

1. Alison Pearson in Byrehills, Fifeshire, was convicted in the year 1588 of practising sorcery and invoking the devil. She confessed that she had associated with the Queen of the Fairies for many years, and that she had friends in the Court of Elfland, who were of her own blood. She said that William Simpson, late the King's smith, was, in the eighth year of his age, carried off by an Egyptian to Egypt, where he remained twelve years; and that this Egyptian was a giant; that the devil appeared to her in the form of this William Simpson, who was a great scholar, and a doctor of medicine, who cured her diseases; that he has appeared to her, accompanied with many men and women, who made merry with bagpipes, good cheer, and wine; that the *good neighbours** attended, and prepared their charms in pans over the fire; that the herbs of which they compose their charms were gathered before sunrise; and that with these they cured the Bishop of St. Andrews of a fever and flux. She underwent all the legal forms customary in cases of witchcraft, *i.e.*, she was convicted and condemned, strangled and burned.

2. It was proved against John Cunningham (1590) that the devil appeared to him in white raiment, and promised, that, if he would become his servant, he should never want, and should be revenged of all his enemies; that he was carried *in an ecstasy* to the kirk of North Berwick, where the devil preached to him, and many others, bidding him not to spare to do evil, but to eat, drink, and be merry, for he should raise them all up gloriously at the Last Day; that the devil made him do homage by kissing his—(not his face!) That he (the prisoner) raised the wind on the king's passage to Denmark, &c.

3. Euphan M'Calzeane was a lady possessed of a considerable estate in her own right. She was the daughter of Thomas M'Calzeane, Lord Cliftonhall, one of the Senators in the College of Justice, whose death, in the year 1581, spared him the disgrace and misery of seeing his daughter fall by the hands of the executioner. She was married to a gentleman of her own name, by whom she had three children. She was accused of treasonably conspiring the King's death by enchantments (May, 1591); particularly for framing a waxen picture of the King, of raising storms to hinder his return from Denmark, and of various other articles of witchcraft. *She was heard by counsel in her defence, she was found guilty by the jury, which consisted of landed gentlemen of note; and her punishment was still severer than that commonly inflicted on the Weyward Sisters—she*

* "Good neighbours" was a term for witches. People were afraid to speak of them opprobriously, lest they should provoke their resentment.

was burned alive, and her estate confiscated. The act does not say that the sentence was unjust; but that the King was touched in honour and conscience to restore the children. But, *to move the wheels of His Majesty's conscience*, the children had to grease them, by a payment of five thousand marks, and by relinquishing the estate of Cliftonhall, which the King gave to Sir James Sandilands, of Llamanns. As a striking picture of the state of justice, humanity and science in those times, it may be remarked that this Sir J. Sandilands, a *farourite of the King's* ("*ex interiore principis familiaritate*"), who got the estate, which the daughter of one Lord of Session forfeited, on account of being a witch, did that very year murder another Lord of Session in the suburbs of Edinburgh, in the public street, without undergoing either trial or punishment.

4. Margaret Wallace was tried in 1620 before the Circuit Court of Justiciary. *The Duke of Lennox, the Archbishop of Glasgow, and Sir George Erskine, of Innerteil, sat as assessors to the judges, and an eminent counsel was heard in behalf of the prisoner.* She was accused of inflicting and of curing diseases by enchantment; but it was not specified what spells she employed. It was "libelled" against her, that on being taken suddenly ill she sent for one Christian Graham, a notorious witch, who afterwards suffered capital punishment, and that this witch transferred the disease from the prisoner to a young girl; that the girl being thus taken ill, her mother was advised by the prisoner to send for Christian Graham, who answered *that her confidence was in God, and she would have nothing to do with the devil or his instruments*; the prisoner replied, *that in a case of this sort, Christian Graham could do as much as God himself, and that without her aid there was no remedy for the child*; but the mother not consenting the prisoner, without her knowledge, sent for Christian, who muttered words and expressed signs, by which she restored the child to health, &c. In spite of the pleadings of her counsel, the prisoner was found guilty.

5. Isabel Young, in East Barns, was accused, in 1629, of having stopped by enchantment George Sandie's mill *twenty-nine years before*; of having prevented his boat from catching fish while all the other boats at the herring fishery were successful; and that she was the cause of his failing in his circumstances, and of nothing prospering with him in the world; that she threatened mischief against one Kerse, who thereupon lost the power of his leg and arm; that she entertained several witches in her house, one of whom went out at the roof in likeness of a cat, and then resumed her own shape; *that she took a disease off her husband, laid it under the barn door, and transferred it to his nephew, who, when he came into the barn, saw the firlet (a kind of measure) hopping up and down the floor*; that she used the following charm to preserve herself and her cattle from an infectious distemper, viz.. to bury a white ox and a cat alive, throwing in a quantity of salt along with them, that she had the devil's mark, &c.

Mr. Lawrence MacGill and Mr. David Primrose appeared as counsels for the prisoner. They pleaded that the mill might have stopped, the boat caught no fish, and the man not prospered in the world from *natural causes*; and it was not "libelled" by what spells she had accomplished them; that as to the man who had lost the power of his leg and arm, first, she never had the least acquaintance with him; secondly, she offered to prove that he was lame previous to the threatening expressions which she was said to have used; that the charge of laying a disease under a barn door was a ridiculous fable taken probably from a similar story in Ariosto; and that two years had elapsed between her husband's illness and his nephew's; that what the prosecutor called the *Devil's mark* was nothing else *than the scar of an old ulcer*; and that the charge of burying the white ox and the cat was false.

The celebrated Sir Thomas Hope, who was counsel for the prosecution, replied, that *these defences ought to be repelled, and no proof allowed of them, because, contrary to the libel (indictment), that is to say, in other words, because what was urged by the prisoner in her defence contradicted what was charged by the public prosecutor in his indictment.* The defences of the prisoner were over-ruled. Is it needful for me to add that she was convicted, strangled, and burned.

(To be continued.)

*Hallucinations in General Paralysis of the Insane; Especially in Relation to the Localization of Cerebral Functions.** By
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After a brief reference to the frequency of hallucinations in general paralysis they will, in the second place, be considered in relation to the question of cerebral localization.

1.—There has not been too much attention bestowed upon the hallucinations and illusions of the special senses in general paralysis. Other more prominent clinical aspects of the affection have often somewhat engrossed attention to the neglect of the sensory hallucinations and illusions.

Sometimes, indeed, these hallucinations are vivid, and are clearly and forcibly expressed by the sufferer, but it not seldom happens that they are by no means obvious, or even that they are only revealed by a careful research into the history and by oft-repeated observations and questioning of the patient. The sensory hallucinations and illusions must, therefore, be sought for; and their absence must be satis-

* This paper was prepared for the July number of the Journal, as explained at page 217 of that number.

factorily proved at different parts of the course of a given case before one can conclude that it has been free from hallucination throughout.

For conciseness, the word hallucination will be used in parts of this paper as inclusive of both hallucination proper and illusion of any of the five fundamental special senses. Disorder of general sensibility, of muscular and other senses, will not be adverted to here.

In the descriptions usually given of general paralysis, hallucination of the special senses plays but a minor part, and in some is entirely excluded. To the delusions, the exaltation, the hypochondria, and the dementia of general paralysis the chief rôles are assigned, and on them is attention rivetted. The hallucinations of special sense are comparatively neglected. Nevertheless, the sensory hallucinations are more frequent and important than is usually conceded. In my own experience hallucinations have occurred in more than half the cases of general paralysis, as is more fully detailed below.

To bring out clearly several points in connection with this subject I have taken 100 of the cases of general paralysis most recently under my care, and in which the histories and symptoms were more fully and minutely related than were those of some of the cases of general paralysis previously observed by me. There is the further convenience in examining this number that the numbers of individuals under any headings also express the percentages.

In the following numbers are included both the cases in which the existence of hallucination was indubitable and some in which there was distinct evidence, though scarcely absolute proof, thereof. On the other hand, these hallucinations may easily exist, and yet escape being recognised or placed on record; in many cases, also, the intellectual confusion and failure preclude the patient from affording the necessary information to the observer. For these reasons the following are probably *minimum* percentages; a view that to some extent derives support from an analysis of the last fifty of the 100 cases, the notes of which are, on the whole, rather more complete than those of the first fifty.

The cases were all males. Of these 100 male cases of general paralysis, 88 were soldiers, 8 were gentlemen, and 4 were paupers. In some respects it might have been preferable to have included (in the 100) patients of the military class only, but this view was out-weighted by the

wish to comprise only the more recent and more minutely noted examples. Of the soldiers, 46 had hallucinations and 42 had not; of the gentlemen, 7 had hallucinations and 1 was free therefrom; and of the paupers, 2 had hallucinations, and 2 were exempt. The few patients other than soldiers included in the above one hundred general paralytics—and solely because they were among the cases more recently admitted and more fully noted—have but little influence on the statistics; and the percentages are much the same if readjusted in application to the military element only.

Of the one hundred, in 55 were hallucinations or illusions of the special senses; in 45 none were obvious, at least while the patients were under my care. But of the last admitted 50 of these 100 cases, 29 (or 58 per cent.) had hallucinations; and 21 (or 42 per cent.) had not, so far as was ascertained.

Of the total one hundred cases, there were visual hallucinations in 41; auditory hallucinations in 40; tactile hallucinations in 12; gustatory hallucinations in 12; and olfactory hallucinations in 11. More correctly speaking, many of these were illusions.

In several examples, included above as of gustatory illusion, there was scarcely proof of more than disorder of the olfactory sense, by which the flavours of food are perceived. The examples in question are also included under the heading of olfactory hallucination and illusion.

Both auditory and visual (with or without other) hallucinations were present in 32 cases; the auditory predominated very decidedly in 7 of these, the visual in 5.

Of the subjects of hallucination, in about one-third there were hallucinations of one special sense only; in about two-thirds there were hallucinations of several of the special senses.

(a). The number with hallucination of *one* sense only was 18. These were distributed as follows:—

In 9 were hallucinations of sight only.			
„ 6	„	„	„ hearing only.
„ 1	„	„	„ touch only.
„ 1	„	„	„ taste only.
„ 1	„	„	„ smell only.

(b). Hallucinations of *two* special senses only, were observed in 24 cases. In the majority of these, namely in 21, the two senses affected were sight and hearing. Of the three remaining cases hearing and touch were affected in one, and taste and smell in the other two.

(c). In 5 cases hallucinations of *three* special senses were noted. In 4 of these hearing, sight, and touch were affected; and hearing, taste, and smell in the remaining one.

(d). Hallucinations of *four* of the special senses were found in 3 cases. In these, the sense *not* noted as being affected was either that of touch, taste, or smell.

(e). Hallucinations of *all the five* senses now in question were exhibited by five of the patients.

To make the subject clear at a glance most of the preceding statistics may now be recapitulated in a tabular form.

Of the *total number* of cases:—

Hallucinations were present in	...	...	...	...	55 per cent.
Or " " " in (of the last 50 cases only)	...	...	...	...	58 "
" " absent in...	...	...	...	...	45 "

Also, of the *total number*:—

Visual hallucinations were present in	...	...	...	...	41 "
Auditory " " " in	...	...	...	...	40 "
Tactile " " " in	...	...	...	...	12 "
Gustatory " " " in	...	...	...	...	12 "
Olfactory " " " in	...	...	...	...	11 "

Both auditory and visual (with or without other) hallucinations occurred in ... 32 "

Of these, the auditory predominated very decidedly in 7, or (of the total number) in ... 7 "

And the visual predominated very decidedly in 5, or (of the total number) in ... 5 "

(a). Hallucinations of only *one* special sense were observed in ... 18 "

Of these there were hallucinations of sight only in 9, or (of the total number) in ... 9 "

Of these there were hallucinations of hearing only in 6, or (of the total number) in ... 6 "

Of these there were hallucinations of touch only in 1, or (of the total number) in ... 1 "

Of these there were hallucinations of taste only in 1, or (of the total number) in ... 1 "

Of these there were hallucinations of smell only in 1, or (of the total number) in ... 1 "

(b). Hallucinations of *two* senses only, were present in ... 24 "

Of these sight and hearing were the two affected in ... 21 "

(c). Hallucinations of *three* senses only, in ... 5 "

Of these, hearing was affected in all, and vision in four.

(d). Hallucinations of *four* senses in ... 3 "

Sight and hearing were affected in all of these.

(e). Hallucinations of *five* special senses in ... 5 "

Then, if we take only the general paralytics actually known to be the subjects of hallucination, and estimate in them the relative frequency with which the several different senses were affected, we find that visual hallucinations were

present in $74\frac{1}{2}$ per cent.; auditory in 73 per cent.; tactile and gustatory, each in 22 per cent.; and olfactory in 20 per cent.

As to the relative frequency of the several kinds of hallucinations in general paralysis, the leading position has sometimes been assigned to the visual, which have been considered more frequent than even the auditory. The experience summarized above scarcely supports that view, if the *absolute frequency* of each kind alone receives attention, for in this group of 100 cases there is a virtual equality between the percentage of cases with visual and that with auditory hallucinations. And, indeed, of the cases in which the two kinds of hallucinations coexisted, the auditory predominated in examples rather more numerous than were those in which the visual predominated. Nevertheless, the richness of general paralysis in visual hallucinations is true, but it is more especially a *relative* richness. The *relative proportion* of the visual to the auditory is much higher in general paralysis than in the other forms of insanity, taken collectively, as found in our asylums. Excluding idiocy and imbecility on the one hand, and, on the other, general paralysis, it is probable that auditory are more frequent than visual hallucinations in a given asylum population in this country. This is partly due to the chronicity of most of the cases, for in the acute forms of insanity visual hallucinations are relatively far more frequent than in the chronic. My impression is that auditory hallucinations are unusually frequent among the insane soldiers who have come under my care, taken collectively as a class. Auditory hallucinations have apparently occurred in a larger percentage of these soldiers than of the pauper inmates of county asylums in which I have held office. Upon going minutely into the cases I have found that of the 111 soldiers last admitted into this asylum at least 81 were the subjects of auditory hallucinations. (These numbers were taken out towards the close of 1880.) This is a proportion of about 73 per cent. But there were among these some general paralytics; and excluding the general paralytics for comparison's sake, it is found that of the rest of the cases at least 79 per cent. were subject to hallucinations of *hearing*. In $3\frac{1}{2}$ per cent. more there were either mere simple subjective sounds audible to the patients, or some evidence, without decided proof, of the existence of auditory hallucinations. Over 80 per cent., therefore, may fairly be deemed to have been the subjects of

hallucinations of *hearing*. From this estimate the general paralytics are excluded.

On the other hand, in the very same patients, namely in those other than general paralytics, the proportion suffering from *visual* hallucinations was only about $49\frac{1}{2}$ per cent. The relative proportion (about 80·50) here shown between the two kinds of hallucination is, however, qualified and modified by the circumstance that the more acute and more curable military cases were not sent here, but were retained and treated elsewhere. General paralytics and other incurable cases, were, however, often sent here at the onset of their disease, and without delay.

Thus, two more points are clearly brought out. The one, that in soldiers auditory hallucinations predominated in frequency over the visual in non-acute insanity, either estimated collectively, or, and more especially so, if cases of general paralysis be excluded; in the latter case—taking the minimum estimate—as 79 per cent. to $49\frac{1}{2}$ per cent. (say 80·50). The other, that at least in the non-acutely insane soldiers of the British army auditory hallucinations are more frequent among those who are not general paralytics than among those who are: as about 79 (or 80) per cent. to 40 per cent.

Nevertheless, the hallucinations in general paralysis may not only be transitory and evade notice, but also in many cases may exist before the patients come under observation, and not afterwards, and may have been unrecognised and unrecorded in the previous history obtainable. Were all cases of general paralysis under skilled observation from the very onset, I believe that the percentage of them with the hallucinatory phenomena occurring at one period or another would be found higher than is given in the preceding pages.

From the above statistics it may, I think, be fairly concluded that hallucination plays a more important part in the clinical phenomena of general paralysis than has hitherto been generally recognised. In clinical descriptions of general paralysis published by some observers no mention whatever is made of hallucination; others speak of hallucination as being observed occasionally only in general paralysis; and still others assert that hallucinations of the special senses in general paralysis are very rare, with the exception of those of sight, to which they concede a moderate frequency.

But Claus, who paid some attention to this point, found

hallucinations in more than a fourth* of his cases ; that is to say, in 11 cases out of 37.

In the statistics of Brierre de Boismont, which, to a large extent, however, are second-hand, the proportion of general paralytics suffering from hallucinations and illusions is one-fourth ; or 37 out of 147 cases.

As for the general characters of the hallucinations and illusions in general paralysis :—

In general paralysis hallucinations and illusions are often of short, or even transitory or ephemeral duration.

Sometimes they recur irregularly, and endure for various periods of time.

They are often variable, mutable, inconsistent, being usually less fixed and systematized than the hallucinations of many of the insane of other groups.

Not seldom, those of a given sense are multiplying.

Often, too, do they harmonize in absurdity with the absurd character of the delusions present.

They are often of crude, tumultuous character, and illusions are frequent.

Co-existing hallucinations of the different senses not seldom relate to totally disconnected subjects ; and one hallucination sometimes is contradictory to another.

Sometimes they are not obtruded by the patients ; do not discover themselves, and are only revealed upon enquiry.

Not unfrequently they are either extremely pleasurable or extremely disagreeable in nature.

These characters of the hallucinations are not rigidly distinctive, being absent in various degrees from the hallucinations of some general paralytics, and in various degrees present in those of some examples of other forms of mental disease.

It is not easy to separate the hallucinations of general paralysis into rigidly defined clinical groups ; one need only, in very broad and elastic terms, speak of them as being either neutral, and more or less free from any features indicative of emotional perturbation ; or, secondly, as bearing the impress of expansive exaltation ; or, thirdly, as blended in origin with, or testifying to, hypochondriacal or melancholic conditions, or at least unpleasing conceptions or internal impressions.

In the case of *visual* hallucination the first group is the most

* A third I stated elsewhere, by a slip of the pen.

frequent, while the second occurs with a slightly greater frequency than the third. These may now be briefly illustrated by actual cases, and from the notes before me. It may also be stated, once for all, that it was clearly made out in these cases that the statements of the patients referred to hallucinations and illusions, and not to delusions, and were not due to mere confusion of memory.

In the first group are visual hallucinations and illusions of the following nature:—Strangers are observed at night; imaginary beings in the air; or, to the patients, the buildings and their surroundings are much changed in appearance; or cannons are visible upon the room-walls; or persons depicted in mural decorations appear to be alive; or his wife, or officers under whom the patient served, or his former comrades and acquaintances are visible to him; or lights and fires, and “I O U’s.”; or a man and his spirit; or people who seem to roll in the patient’s eyes; or strange objects making way through the air; or little black spirits; or imaginary objects and spots on clothes and bedding; or birds flying about; or conflagrations. A chest of drawers is mistaken for a sofa, and at night the night-attendants and surroundings for railway people and trains; and harlequins and others are seen walking about the room.

As for the second group—various patients state that they are in heaven, surrounded by beautiful objects which are pointed out by them, and the bystanders are taken for celestial beings, or for commanders-in-chief in full uniform; or God is seen in heaven, and the golden gates of Paradise silvered inside; or stars appear; or money falling from the sky; or the Virgin and saints, and the Holy Ghost in the form of a dove. Visiting angels perch near by; officers dressed in gold, and crowds of eminent men or kings make appearance; the surrounding articles of furniture, or ordinary buttons, appear to be golden, and pebbles to be diamonds.

And in the third group, the imaginary personages seen may be deemed by the patient to be disagreeable and hostile to him; or he sees people with “nasty mouths” who wet him, as well as “nasty stuff” that is squirted upon him; or piles of corpses are seen; or the patient is terrified by threatening and strange persons or fiends; he perceives people enter his room to poison him; or his brother going to burial; or funny old men who seek to compass his death.

Many patients, however, from whom one cannot gather

any description of the cause of their terror and alarm appear at times as if affrighted by hideous sights or sounds.

Roughly dividing *auditory* hallucinations in general paralysis in a similar way the three groups are found to be more equally represented, so that the pleasing hallucinations are about as numerous as the neutral, and are slightly more frequent than the unpleasing.

As a few illustrations of the first group, mention may be made of cases in which the patient heard either loud (unreal) noises ; strange persons conversing with him, or imaginary beings in the air ; men talking from the ceiling ; the buzzing sound of machinery ; the drill-sergeant calling to "fall in ;" people talking in the patient's belly and head, his mother's or his wife's voice, clocks ticking at his own home ; his own voice sounding loud and far away in the air ; little spirits in the air conversing with him ; or he hears revolvers fired, receives orders to kill those about him ; or hears his battery of artillery close by, or men calling out his name.

As to the second group, the patient in different cases says that he hears orders from God, stars speaking to him, or the Virgin Mary ; angels singing, "chaffing" one another, and playing in heaven ; God talking day and night ; persons in Heaven conversing with the patient, bands of music playing there, the Virgin and angels revealing secrets, or the Holy Ghost and saints. The Queen "telephones" to him ; angels promise future bliss ; long conversations are held with God, or constant telegrams from Him are audible ; or singing is heard ; or the voices of former officers hold him in conversation.

Third group. To the patient it seems that those about him audibly urge him to suicide, or that he is ordered to injure himself ; or is charged with theft ; or that voices annoy at night, or threaten, or that those about him insult him, tell him he is about to be killed, or accuse him of wickedness ; or he hears snakes in his abdomen, strange cries, and people being killed upstairs ; and he is often terrified by what he hears.

The hallucinations and illusions of *touch* are most frequently of a disagreeable—less frequently, but often, of an agreeable—character. Fæcal lumps (says the patient) adhere to his skin ; or dirty fluids are thrown upon it ; or he feels sudden kicks and blows on the skin when no one is near him ; or his skin is tucked in, is strangely injured in various ways,

or is taken off and hung out to dry in the sunshine. Or, again, angels stroke him lovingly with their wings ; or the saints of heaven lay their hands upon him ; or he nestles in God's arms and feels His touch.

The hallucinations and illusions of *taste* in general paralysis are usually of disagreeable character, and for the most part refer to poison in the food or air ; or to putrefaction of food ; or evil tastes independently of food-taking. In several of these cases, however, also classed under hallucinations or illusions of smell, the disorder was perhaps confined to the latter in reality.

Those of *smell* are much the same, being usually disagreeable, and often attributed to poison put in the patient's food or bed ; or to imaginary odours emanating from his person, or from supposed defilement.

2.—*The Hallucinations in General Paralysis Considered in Relation to Cerebral Localization.*

We may now pass from the clinical to the physiological and pathological aspects of this subject.

In treating of the hallucinations sometimes observed in general paralysis, in their relation to the question of cerebral localization, attention will here be mainly confined to the *adhesions* usually found between the pia-mater with arachnoid, and the brain-surface, in general paralysis. The portions of cortex underlying these adhesions I have often found to exhibit a greater degree of structural change under the microscope than the neighbouring portions of the cortex unaffected by adhesion. I have so fully discussed this whole question in previous contributions* that I need only briefly refer to it now by reproducing an excerpt from an article I published in the "Journal of Mental Science" for April, 1878.

"General paralysis varies much, in different cases, as to the parts of the encephalon especially attacked ; the disease has in this case spent its force with greater severity upon certain localities, in that case upon certain other foci, and in still another upon a third locality or group of localities. In endeavouring to localize the points of principal morbid implication, I began, in 1873, to specially observe and record

* "Journal of Mental Science," Jany. 1876, p. 571-576 *etc.*

"Journal of Mental Science," April, 1878, p. 29 *et seq.*

"General Paralysis of the Insane," London, 1880, pp. 157, 178-9, and (cases) 185 *et seq.*

the exact localization of all the principal adhesions of the pia-mater to the cortex of the cerebral hemispheres. This adhesion I had always looked for, and recorded in outline, in earlier necropsies, and had come to view it as the most characteristic naked-eye appearance in general paralysis. These views as to its importance were confirmed by microscopical verification, in several cases, of a greater intensity of cortical disorganization corresponding with the areas of more decided adhesion of the pia-mater to the surface of the brain, with limited separation of irregular layers of the grey cortex adhering to the meninges when these are removed (adhesion and decortication). In the early part of 1875 I wrote a paper ("Journal of Mental Science," Jan. 1876), giving details of one of the cases in which each adhesion was thus recorded, and an attempt was made in that communication to see how far certain of the symptoms observed during life could be explained by a reference to the irregular distribution of the adhesion and decortication, and how far, in that case, the results of the experiments of disease tallied with those of the experiments of the physiological laboratory. Perhaps, and as far as I know, the above were the first investigations into the exact localization and distribution of the adhesions in various cases of general paralysis for the purpose of throwing light upon certain clinical features of the disease. I believe that valuable results are to be obtained from this line of inquiry, and, in publishing necropsies, I will describe the localization of these adhesions with minuteness. But the adhesions in question, and the associated changes wrought in the corresponding portions of the grey cortex, are not invariably present in general paralysis, and they constitute but one of the points to be examined in investigating the anatomical distribution of the more extreme degrees of morbid change in individual cases of that disease. The other conditions of the grey cortex must also be particularly observed, the portions of it earliest or most specially attacked must be sought for, and its state, both general and local, as to vascularity, consistence, bulk, pathological products, and degeneration, examined. An investigation of the same kind must be directed to the series of central ganglionic masses near the base of the brain, to its medullary substance, to the bulbar tissues, to the cerebellum, and to the spinal cord and its meninges, as well as the sympathetic ganglia. So, also, must be taken into account such secondary products and complications as excessive serosity, arachnoid hæmorrh-

hage and cysts, pia-matral hæmorrhage, local pachymeningitis, local ramollissement. Finally, there is required a careful microscopical examination of the nervous systems of a large number of general paralytics, carefully compared with detailed records of the clinical features observed in each."

Thus, the adhesions seem, in part, to mark the points of greatest activity of the cerebro-meningeal change in general paralysis; they sometimes do, and sometimes do not, affect the supposed cortical sensory centres described by Ferrier. Supposing the change to affect a true cortical sensory centre we would expect its earlier steps to be attended with violent functional perturbation and disorder of the centre, such as hyperæsthesia, hallucination, illusion. But in many cases of general paralysis no hallucinations of special sense are observed; in other cases these hallucinations are vivid, and are perhaps revealed more or less frequently during a considerable period of time.

Therefore one is led to examine whether or not the cases in which hallucinations occur in general paralysis are the same as those in which the adhesions and other marked cortical changes affect the supposed cortical sensory centres. And this without prejudice to the view that hallucinations in general paralysis may also be the outcome of the general activity and fulness of the cerebral circulation, or of a tumultuous, disorderly reaction of disturbed ideational centres upon sensorial.

Attention will be limited here to certain cases that bear upon the positive aspect of the question; cases, namely, in which were well-marked hallucinations, and in which careful necropsies were made. Cases of negative bearing on the problem—those unaccompanied with hallucination—will be excluded from consideration here; as, also, will hallucinations and illusions other than the visual and auditory, and the more so as these two kinds of hallucination are the most frequent and important in general paralysis.

Let me not be understood here as taking any narrow and limited view of the production of hallucinations. So far from this rather let it be granted that hallucination may take its starting point in a morbid impression upon, or a morbid condition of, any part of the sensorial apparatus. The morbid condition forming the starting point of hallucination may have its seat in the recipient peripheral expansions of the sensory nervous mechanism, or in the conducting fibres passing thence, centripetally, towards the sensory basal

ganglia, and sometimes renewed or reinforced on the way by intervening bulbar or pontine or more removed quadrigeminal centres; or, again, the morbid focus may be in these sensory ganglia themselves, situate at the brain-base, somewhat elementary and simple in endowment, and making early appearance in the order of evolution; or, again, the morbid condition may be in the nervous tissue forming the paths of sensory vibrations between these ganglia and the higher perceptive cortical sensory centres of the cerebral hemispheres; or, finally, may be in these very cortical centres themselves.

And, indeed, these last-named and cortical sensory centres appear to be, of all, the most important in the genesis of hallucination. Without their participation in derangement it is difficult to apprehend how hallucination can exist, at least in its higher and more developed forms. In hallucination there is evidence of pathological activity in the supreme centres concerned with the co-ordination of sensory impressions into complex perceptions, and of the arousing into present consciousness of the results of the highest mental integrations—of the treasures of past experience—with the acquisition of which the highest mental faculties are obviously concerned. If the cerebral cortex minister to the psychical powers it must be deranged when true systematized hallucination exists.

It may readily be conceded that in ordinary insanity the starting point of hallucination is by no means limited to the cerebral cortex, that the peripheral sensory mechanism, the nerves, the lower centres, the basal ganglia, the cerebral medullary fibres, may each also be the focus of original perturbation; though in each instance a special modification of the supreme centres must exist to permit of the birth of hallucination. To be fruitful the seed must fall upon congenial soil.

The same view as to the genesis of hallucination may also readily be conceded as obtaining in general paralysis. But in general paralysis the symptoms directly or indirectly flow from definite structural lesions of the tissues making up the substance of the nervous organs, and in the most frequent case those lesions primarily, or even mainly, affect the periphery of the brain. Pathological anatomy, therefore, reinforces the view that in general paralysis hallucinations, for the most part, depend upon the effects of the morbid process invading the cerebral cortex and laying it waste;

for, while it disorders the cortical functions, this morbid process also destroys the more delicate and subtly woven portions of its structure.

And in this relation one may well bear in mind how often, in general paralysis, especially in the less early stages, hallucination is of a crude, coarse, confused nature; and the correlative fact as to the coarse, gross, material character of the morbid process here supposed efficient in initiating its production.

And while admitting that in general paralysis hallucination may be immediately originated by the morbid state of a nerve of sense, as a starting point, yet it seems right to assign hallucinations far more frequently to a primary morbid condition of cortical sensory centres; and the more so inasmuch as the relative frequency with which the several nerves of special sense are structurally affected in general paralysis is not directly proportional to the relative frequency with which the corresponding several forms of hallucination are observed therein.

The optic thalami are the centres most likely to be put forward to contest with centres of the cerebral cortex for the leading place to be assigned in the production of hallucination; but in my experience thalamic disease plays a less important part in general paralysis than cortical.

In short, while fully recognizing that hallucinations in general paralysis sometimes take, as it were, their starting point in the nerves, lower centres, or basal ganglia, I think that, in the great majority of cases, even their points of departure are in cortical centres specially concerned with sensory perception, taking part in the higher mental operations, and intimately associated or blended with other centres, in equal rank, ministering to more purely intellectual function. The visible lesions, although not the most immediate excitants of hallucination yet do condition a functional disturbance of the cortical centres of such kind that in reacting thereto conformably with the modes of energizing established in the course of their evolution and growth, and by past experience, these centres give birth to hallucination.

(To be continued.)

CLINICAL NOTES AND CASES.

Case of Feigned Insanity. By ALEX. ROBERTSON, M.D.,
F.F.P.S.G., Physician to the City Parochial Asylum and
Hospital, Glasgow.

Physicians who have had experience in doubtful cases of insanity know well how difficult it sometimes is to pronounce decidedly as to the presence or absence of mental unsoundness. On the one hand, the striking differences that are to be met with in intellectual and emotional characteristics within the sphere of mental health, and, on the other, the equally great diversity in the features of the various forms of disordered mind, occasionally render the problem one not easy of solution. Moreover, the decision in such cases often involves serious responsibility. This occurs more particularly when the question arises in relation to grave criminal charges, and where medical opinion is sought to aid in determining if vagaries of conduct and seeming delusions are to be considered evidences of real mental disorder, or are feigned for the purpose of screening the accused from the legitimate penalties of their crimes.

It needs no other fact to illustrate the difficulty that may be experienced in arriving at a correct conclusion in such cases, than the statement by so experienced and accomplished a physician as Dr. Bucknill,* that, when in charge of the Devon County Asylum, he was at first deceived by the dissimulation of a prisoner who was placed under his care, though afterwards he was convinced that the seeming lunatic was really of sound mind, and certified to that effect. From the record of the following case, it will be seen that the prisoner was successful in deceiving his warders and others for a considerable time.

On the 2nd August, 1880, the newspapers bore that on the 31st July, being Saturday, a brutal murder had been committed in Glasgow. Condensing the details which were afterwards sworn to at the trial of the prisoner, the following is the story of the crime, special prominence being given to the conduct of the accused.

About 10 p.m., on the night of the 31st, Edward Devine, a young man of 17, was in company with some friends in a court at the back

* Bucknill and Tuke's "Psychological Medicine," 3rd edition, p. 466.

of a block of dwelling-houses, occupied by the lower working-classes. They were endeavouring to raise and place on his feet a drunken man who had fallen on the ground. This man was brother-in-law to Thomas Dolan, the criminal in question. While so engaged Dolan came out of an entry, and with an oath asked what they were doing. Devine civilly replied, mentioning whom they were assisting. Thereupon Dolan aided them in their endeavours, and ultimately along with two of the party—Devine not being one—took the helpless drunkard home. Dolan, however, quickly returned, having an open knife in his hand, and, without any provocation, stabbed Devine in the belly. The wound was a severe one, and proved fatal in less than 48 hours. Immediately after committing the act Dolan ran off, and was not captured till four days afterwards. He was apprehended at no great distance from the scene of the crime, though it was ascertained that he had been ten or twelve miles out of the city in the interval.

The day following his apprehension Dolan was brought before the Sheriff-Substitute of the county, and then made the following declaration, which we give in full, so that an idea may be formed of his mental state soon after the fatal assault:—

“My name is Thomas Dolan. I am a native of Ireland, and reside at Middleton Place, Garngad Road, Glasgow. I sometimes am known by the name of D’Arcy. My step-father gives me that name. I did not know Edward Devine, iron-dresser, and I was not aware that he was in a close at Middleton Place, on Saturday night, the 31st of July last. That night I was going out from my own house, 13, Middleton Place, for a glass of beer, and I saw a lot of people standing in the close, 21, Middleton Place. It is a dark close, and the people I have referred to were standing in the dark portion. Some of them asked me if I was going to stand them a glass of beer, and I said I hadn’t it on me, except what I was going to get for myself. When I told them this, some of the men in the close knocked me down, and began to kick and batter me, and they called me out of my name, and said they would have the beer out of me if they could not get it to drink—that they would give me a beating for not getting the beer. I tried to protect myself as well as I could, but whether I had a knife in my possession and used it, I cannot say. I do not remember having a knife at all that night. I do not remember that there was a good brother of mine in the close that night. I did not see a drunken man in the close that night, and I did not see anybody going forward as if to lift a drunken man. I saw nobody in the close except those people I have referred to as having assaulted me. There was a lot of people who attacked me, but I cannot say who they were, because the close was dark. Besides, they knocked me so stupid that I could not say who was about me. I was about half drunk that night. I had three or four glasses of whisky, besides ale or porter. All which I declare to be truth. I cannot write.”

My connection with the case began on the 26th November. I was then asked by the Public Prosecutor (Procurator-Fiscal) to visit the prisoner in gaol, and give an opinion respecting his mental state. The Deputy-Fiscal mentioned that two or three days after his apprehension prisoner had begun to act wildly, and had continued that kind of conduct since that time. It was said, that though it was the impression that the man was scheming, he had persisted in his deception—if it were so—so long that the case had assumed a different and more difficult aspect than at first.

My first procedure, on going to the gaol, was to question the officials in charge, the Governor, and the warders who had the immediate oversight of the prisoner, respecting their observations of his behaviour. They all leaned distinctly to the view that he had become insane, and with two exceptions said so without hesitation. This, upon the whole, was also the impression of the prison surgeon, who was good enough to read to me the reports he had made respecting accused from time to time in his journal. I also obtained a very full account of Dolan's conduct from two other prisoners who had been constantly in the cell beside him during the greater part of his imprisonment. At the same time it was borne in mind that the testimony of prisoners, and particularly of untried ones, had little moral weight, and could only be considered of value in relation to the evidence derived from more reliable sources.

Throwing their various statements into narrative form, it appears that four or five days after his apprehension prisoner suddenly became violent, walked up and down his cell, crunching his teeth and rolling his eyes, swore wildly, threw jugs and basins at his fellow-prisoners, and made sudden and dangerous attacks on them. He was also filthy in his practices, for example, putting his feet into the chamber-pot, and messing the floor. Early in his confinement his conduct was so unruly, and he was so unmanageable and dangerous that it was deemed advisable to restrain his arms by strong leather muffs. After about ten days he became quieter, and it was found practicable to dispense with the mechanical restraint to his person. Periods of comparative calm, followed *apparently* by paroxysms of maniacal excitement, necessitating the use of the muffs, followed each other at irregular intervals till the time of my visit. There had been no seeming delusion beyond his declaration that he saw men at the window, who were not

really there. He was supposed to have made two attempts at suicide by trying to suspend himself from the window of his cell by a handkerchief, and he had also frequently threatened to destroy himself. With respect to the alleged attempts at self-destruction, careful inquiry failed to show that he had actually been hanging by the neck. The medical officer of the prison had also put a bottle filled with coloured water, with poison marked on it, in his cell, and had spoken in his hearing about its dangerous properties. The prisoner had drunk about half its contents.

Throughout his whole confinement Dolan's appetite had been good, indeed, often very keen. For a time he was troublesome at night, and had been getting chloral to induce sleep, but latterly for some weeks this had been omitted. Without medicine he had slept seven or eight hours a night, though sometimes noisy for a short time during its course. For many weeks it had been necessary to take off his clothes by force and remove them from the cell.

As already mentioned, my first visit to the accused was on the 26th November, and three days afterwards I had another interview with him. Next day, the 30th, I stated to the Fiscal my opinion of the prisoner's mental state, and the grounds on which it was based. I shall quote, as nearly as I can recall, the exact words of my deposition:—

On the 26th inst., I found him acting in a very furious manner, swearing wildly and incoherently, with his eyes fixed on the walls of the room, struggling to get his arms free from the leather muffs in which they were secured, and also kicking the wooden stool in the cell. Along with his furious conduct, I noticed that he was able to fix his attention on different subjects to which I referred. Thus, having heard that he had received a blow on his head some years since, I asked him about it. He stopped his noise, and said, as if reflecting, "I don't mind about that blow on the head." I also succeeded in getting him to put out his tongue, and to look at me quietly.

The furious conduct and incoherent swearing manifested by the prisoner during the greater part of the interview were not consistent with his power of fixing his attention and of giving quiet, intelligent answers, supposing the case were one of real insanity.

At my second interview on the 29th inst., I found that Dolan had told another prisoner, named Devlin, who occupies the cell with him, that I had questioned him (Dolan) about an injury to his head, and said that he had really sustained an injury of that kind by a fall down a stair, and further stated to Devlin that I had said that his

mother had informed me of it—which was correct. In addition, Dolan had told him that I had felt his pulse at the temple (which was true), and on Devlin inquiring of Dolan my reason for feeling it there he had said, “you know he could not feel it at my hand for these things,” pointing to the muffs.

The form of furious insanity simulated by Dolan, when real, is associated with some, generally with a considerable disturbance of the general health; but in Dolan there is no indication of disturbance of any of his bodily organs. His skin is soft and cool, his eye is clear and natural, though he rolls the ball much—which is almost never seen in that form of insanity. His tongue is moist and clean, his pulse is calm and regular, his appetite is good, and he is stated to sleep about seven hours at night, besides occasionally during the day. Real insanity of that kind is almost invariably associated with great sleeplessness.

I informed myself of Dolan’s conduct, since he was lodged in prison, by enquiring of the warders and others, and their statements confirmed me in the opinion which I had formed from my own independent observations that the prisoner Dolan is feigning insanity.

Though omitted in this deposition, which I dictated to the Fiscal, I noticed that once or twice after very violent demonstrations prisoner cast a furtive glance at me, apparently to see if they were producing an impression of his madness. Further, his general demeanour, notwithstanding his wildness of conduct, wanted sincerity, and seemed that of a man who was acting not very skilfully a part he had assumed.

It may here be remarked that Dolan is about 35 years of age, strongly built, but of low stature, with head rather small, though not ill-formed. His aspect is indicative of a low type of intellect, with considerable cunning and general degradation.

The prosecution now very properly considered it desirable to obtain additional medical opinion in the case, and accordingly asked Dr. Yellowlees, of Gartnavel Asylum, Glasgow, to visit the prisoner. This gentleman first saw him twice alone and afterwards twice along with myself. I learned from Dr. Yellowlees that at his private interviews prisoner was much less demonstrative than during my visits to him. He was also rather quiet and uncommunicative at the first of our joint meetings. At the same time, as Dr. Yellowlees remarked, there was a clear want of truthfulness, a denying of the knowledge of facts which he obviously did know, in some of his replies. The last joint interview was on December 20th, the day before his trial. Before seeing him we met with the Governor of the Prison, who stated that Dolan

was now quiet and correct in his conduct, and had confessed that he had been feigning madness, explaining that he had been "put up to it" by a fellow-prisoner who occupied the cell with him during the early days of his imprisonment. Dolan repeated this confession to us, as will appear from the medical evidence given at the trial. This we quote from the report in the "North British Mail" newspaper.

"Dr. Robertson deposed that he had visited the prisoner four times in Glasgow Prison. On his first visit he found the prisoner acting in a furious manner. He was walking up and down the cell roaring at the top of his voice, swearing incoherently, and rolling his eyes. He kicked the stool in his cell, and generally acted very wildly. That was his general conduct during the greater part of the interview. Witness asked him questions with the view of testing the state of his mind. On two or three occasions witness observed that he was able to attend and reflect before he answered the questions he put to him. Witness considered that that obvious power of attention and reflection was inconsistent with the furious conduct, the furious type of insanity which was apparent otherwise; further, that furious type of insanity, supposing it to be real, was usually associated with some general disturbance of the system, and witness found there was no disturbance whatever of prisoner's bodily health. In real cases of this kind sleeplessness was very common—almost universal; and witness, on enquiry of prisoner's warders and fellow prisoners, was told that the prisoner slept soundly at night. At the close of his first visit witness was strongly impressed that prisoner was feigning insanity, and at the close of the second visit he came decidedly to the conclusion that prisoner was feigning insanity. At the second visit prisoner's conduct was generally the same as at the first visit, but not so furious. Yesterday prisoner confessed to witness and Dr. Yellowlees that he had been feigning insanity. Prisoner was perfectly calm yesterday.

"Cross-examined by Mr. Dundas (prisoner's counsel)—If he were told that some seven or eight years ago the prisoner received a severe fall, alighted partly on his head, and remained unconscious some time, witness would not be surprised should certain effects remain even at the present time. At the same time he might have had that fall and fully recovered from it. Witness thought prisoner a man of low intelligence, but dogged and cunning.

"By Lord Young (the presiding judge)—When prisoner confessed yesterday that he had been feigning insanity, he said the prisoner Johnstone, who was first confined with him, had advised him to make at the governor, the doctors, and everybody else that came near him, and try to kill them, and if he kept up that till the end he would get what was called 'the Queen's pleasure.' This he clearly understood to be confinement in an asylum."

"Dr. Yellowlees deposed that he visited the prisoner four times—

twice alone and twice with Dr. Robertson. During the first two interviews prisoner was sullen, suspicious, irritable, and would scarcely answer a question other than saying, 'I don't know,' or 'I can't remember.' He was exceedingly restless, and when pressed with questions got angry, and on the third occasion swore a good deal. On the first three occasions that was his demeanour; on the fourth occasion his demeanour was quite different. The general impression produced on witness's mind was that prisoner was a man very decidedly below the average in intelligence—a kind of man who, inflamed by drink, and irritated by the annoyance to which he said he had been subjected, would be likely to get into moods of anger and ungovernable rage. He said he had never behaved in that manner except when he was annoyed by people calling names after him in the street. Witness had been in court during the trial, and he had found in the evidence, which he had heard, no confirmation of the prisoner's own statement that people habitually called him 'Daft Tommy.' Prisoner said people had been calling after him on the night in question.

"Cross-examined by Mr. Dundas—When witness questioned prisoner about the alleged injury, prisoner pointed out a spot on his head, where he said he had fallen."

No proof was led in support of the prisoner and his friends' statement that his head had been injured by a fall six or seven years previously, nor did the evidence bear that his conduct was in any way altered after the time of the alleged fall. There was no distinct mark of injury on his head. The only statement made at the trial which threw any doubt on his previous complete mental capacity was that of one witness, who deposed that prisoner was considered to be of a weak mind. This was not supported by others. The policeman in the district, who had known him for twelve years, said—"He got drunk almost every Saturday. I never thought him to be out of his mind. I always considered him to be very dangerous in drink. We had occasionally to take him to the police office for being drunk and assaulting people."

My own fuller inquiries since the trial confirm the opinion of this witness. The foremen of the work in which he had been employed as a labourer till about a year before he killed Devine stated that he was a drunken, quarrelsome, dangerous fellow, but though regarding him as a low type of a man, they had never thought there was anything wrong with his mind.

At the close of the medical evidence Mr. Dundas said the prisoner was now willing to plead guilty to culpable homicide. The Advocate-Depute, on the part of the Crown, agreed to accept that plea, remarking that although the evidence, in his opinion, had established the sanity of the prisoner, it had at the same time cast the possibility of a doubt as to the strength of the prisoner's mind.

The jury then returned a verdict of culpable homicide in terms of

the prisoner's own confession, and afterwards Lord Young sentenced him to fifteen years' penal servitude.

Little commentary is required on the case. Though Dolan cannot be regarded as imbecile, his intellect seems somewhat under the average of his class. At the same time, it is abundantly clear that there is much cunning and great persistency in his disposition. When he committed the fatal assault he was to some extent under the influence of alcohol, and it is probable that the drink he had taken was coarse and fiery. But while this would increase his excitability and recklessness, it is obvious from his immediate flight and after conduct that he was keenly alive to the serious nature of his crime and the punishment it involved.

Why, it may be asked, when Dolan had with so much determination of character feigned insanity for about four months, did he not maintain the deception till the trial was past? This in all likelihood was due to the fact that after the warders and his fellow prisoners became aware that medical opinion had been strongly expressed against the reality of his apparent insanity they treated him as an impostor. Then he might probably think that nothing was to be gained by further persistence, and that it would be more in his interest to make a full confession of his attempted imposture, after which he would be free to instruct his agent respecting his defence. Accordingly, as soon as he had made his confession, he asked the governor of the prison to be allowed to see an agent, a request which was at once granted.

It is satisfactory to think that the prisoner's attempt at imposition was exposed. Had it been successful, there would have been a serious miscarriage of justice, and other criminals would have been encouraged to practise similar deception in future cases.

Notes of a Case of General Paralysis at the Age of Twelve.

By A. R. TURNBULL, M.B., Edin., Assistant Physician,
Royal Edinburgh Asylum.*

C. W. was admitted to the Royal Edinburgh Asylum on 12th March, 1879, being then 18 years of age. The most prominent mental symptom was a considerable degree of enfeeblement. He had a silly imbecile expression of face, showed marked confusion of ideas

* Read at the Meeting of the Medico-Psychological Association at Glasgow, on 31st March, 1881.

in conversation, and there was great defect of memory—for example he could not tell the day of the week. No delusions were expressed, and there was no excitement, no depression, and likewise no exaltation except that the feeling of *bien être* was well marked. Physically, the boy was fairly nourished, stout but flabby; but he was undersized, and looked younger than his real age. There were very distinct motor symptoms; the articulation was defective, slurred, and tremulous; there were marked tremors of the tongue and lips; the pupils were much dilated, irregular in outline, and very sluggish in their action under light; and there was general weakness of motility, with slowness and unsteadiness in walking. The features were blurred, and the facial expression, as already mentioned, was silly and vacant. It was stated that patient was wet and dirty in his habits. The temperature was 99·4; pulse 92, regular; and there was nothing to be specially noticed in the condition of the other organs.

At the time of patient's admission to the asylum there was no opportunity of obtaining any history of his illness beyond a statement made by one of the accompanying friends that he had been weak minded from childhood. From this information it was at first thought that the case was probably one of congenital insanity. But the motor symptoms were so distinct and striking as to indicate a marked resemblance of the case to general paralysis; and further inquiry was made with the view of obtaining a more particular history of patient's disease. From this it appeared that, except for an illness which he had during the first year of his life, and of which only a vague description could be got, patient had, up to the age of 10, been healthy, and apparently just like other children. His disposition was very bright and cheerful; he went to school, learned readily, and was regarded as above the average in intelligence. At ten years of age he had an attack of hemiplegia, which passed off in about a week. His relatives observed that this attack had left a certain amount of stupidity behind; but nevertheless patient was sufficiently well to be able to follow his occupation as a message-boy. From the age of 12 the mental weakness was observed to increase gradually but distinctly, and continued to become more and more marked until his admission to the asylum; latterly he had been much more irritable and impulsive in his behaviour. Patient articulated well and clearly up till 10 years of age; lost the power of speech at the time of the paralytic attack, then gradually recovered it, but was "thick" in speech for some time afterwards. His friends noticed that his articulation was affected between two and three years previous to his being sent to the asylum, and the difficulty had become more marked during the last year. During the winter previous to his admission patient had two attacks, in which he was very dull and stupid, and would not take his food until it was put into his mouth; each attack lasted about one week, and then patient gradually brightened up, and began to take his food readily again. During

the last three months he had become much more helpless, and wet and dirty in his habits.

In regard to the hereditary history, it was stated that patient's father (aged 43) had lost his sight about three years before, and was now suffering from "softening of the brain." Patient's mother had an epileptiform attack before one of her confinements. Otherwise there was nothing of importance in the family history.

Taken in connection with the history now obtained, the mental and motor symptoms pointed very distinctly to the case being one of general paralysis occurring at a very early age. This diagnosis was verified by patient's subsequent progress. It was soon seen that both the motor and the mental symptoms were increasing steadily. It is noted in the case book that at the time of his admission patient is very helpless, he can take his food himself, but cannot dress himself, and cannot walk upstairs without assistance. In going along a level floor there is no actual dragging of either foot, but the walking is feeble, and the gait unsteady. The right hand is more feeble in its grasp than the left. The articulation is markedly impaired, but patient can pronounce his own name. For a time he was very fond of amusing himself by trying to write or draw in a note-book which he was allowed to keep; and he could write his name with fair distinctness. In the end of April it is noted that the handwriting had become quite illegible—a mere scrawling of a few unconnected strokes on the paper. In July the entry is that patient is now much more confused and enfeebled mentally, has much greater difficulty in walking, cannot now articulate his own name, and is more wet and dirty in his habits than before. In November he was constantly confined to bed, there was very great difficulty in swallowing, and now only liquid food could be taken; bedsores had formed. From this time he broke down very rapidly, falling off greatly in flesh, and becoming very pinched and thin, scarcely able to swallow anything, unable to articulate a single word properly, and lying paralysed and perfectly helpless in bed. The arms and legs were drawn up, and fixed in the position of flexion. Patient died on 23rd December, 1879, the right foot having some days previously shown signs of commencing gangrene.

Post-mortem appearances. The post-mortem examination was made 72 hours after death, and showed the following appearances in the cranium. The skull-cap was much thickened in an irregular manner, being about twice the thickness usually found at patient's age; dense, heavy, and somewhat congested; the diploe was well seen. The dura-mater was thickened and leathery. On slitting up the longitudinal sinus, the walls of the sinus were found to be markedly thickened, and the channel of the vessel was occupied by a mass of clot along a great part of its course. This clot was softish and imperfectly organised, of a pale yellowish colour, and friable; and it encroached upon the lumen of the sinus so as to leave only a small

channel in the centre, which was occupied by recently formed dark-coloured clots of blood. There was very marked atrophy of the convolutions over the vertex of the brain, and a large quantity of serous compensatory fluid drained away when the pia mater was torn, and when the brain was removed from the cranial cavity. This atrophy was distinct in both the parietal and the occipital lobes, but was most marked in the frontal lobes, where the convolutions were quite small and shrunken. The pia mater was thickened and milky, and showed marked adhesion to the cortical cerebral substance, this adhesion being general all over the vertex. The membrane was also found to be adherent to the subjacent cortical substance at the base of the brain, over the orbital surface of the frontal lobes and the outer surface of the temporo-sphenoidal lobes; but the adherence was not nearly so well marked here as on the vertex. The vessels at the base of the brain were healthy; and the cerebellum, medulla oblongata, and pons varolii appeared congested on section. The lining membrane of the ventricles was thickened, and very tough; there were well marked granulations in both the fourth and the lateral ventricles; and also a considerable quantity of serous fluid in the lateral ventricles. A section across the cerebral hemispheres showed congestion of the white matter, dilatation of the perivascular canals, and dragging of the vessels. The grey matter showed very markedly the division into two layers, the inner layer being congested, and the outer pearly and opaque in appearance. The weight of the encephalon was $35\frac{1}{2}$ ounces.

Remarks.—The most interesting feature in the case of C. W. is of course the early age at which the disease made its onset. It has long been recognised that the fourth and fifth decades of life constitute the time at which general paralysis is most common; and the period during which the disease is met with is generally stated at 25 to 60 years. The earlier writers on the subject remark on the great rarity of the disease under the age of 30, and some of them asserted that it is never found after 60. Whether it is really true that general paralysis is now considerably more extensive in its ravages than it formerly was, or that the apparent greater frequency nowadays of the disease is due to the more ready recognition of it, there is no doubt that general paralysis is at the present time not uncommon in the decade between 20 and 30, and that it may also occur after the age of 60. Of 79 cases of general paralysis dying in the Royal Edinburgh Asylum from 1873 to 1878 inclusive, in 33 the disease began between the ages of 30 and 40, in 24 between 40 and 50, and in 8 between 50 and 60, while 10 of the cases were between 20 and 30, and 2 were over 60 years of age. Dr. Macdonald, of the New York City Asylum, found a much

larger proportion above the age of 60 in his cases of general paralysis; of 155 cases, 10 were from 60 to 65 years of age, one was 66, and another 67. Of the two cases above 60 in the Royal Edinburgh Asylum, one was a male aged 61, the other a female aged 64.

But it is very rare to find general paralysis occurring under the age of 20. None of Dr. Macdonald's cases was under 23. Guislain mentions a case in which it came on at 17; and Dr. Clouston has recorded a case in which the disease began at 16, and of which some notes are given in the "*Journal of Mental Science*" for October, 1877. In another case in the Royal Edinburgh Asylum it came on at 20. C. W. makes the third case in the Royal Edinburgh Asylum of general paralysis under the age of 20—the mental symptoms having shown themselves at 12, and the motor symptoms being distinctly marked between 15 and 16.

In giving the history of C. W.'s case, it was mentioned that his father was said to be suffering from "softening of the brain." A few months after the death of the son, the father was admitted to the asylum, and in his case also the disease proved to be general paralysis. The influence of heredity in the development of general paralysis is still a much disputed point. Thus while in the English Lunacy Commissioners' Report for 1878 the percentage of cases in which hereditary predisposition was present is stated at 8·4, Dr. Hugh Grainger Stewart found it in 47·6 per cent. of all the cases in the Crichton Royal Institution. Of 109 cases in the New York City Asylum, Dr. Macdonald found a history of actual insanity in the family in 39 (about 36 p.c.), while in 30 others there was a history of other nervous diseases, and in 22 of intemperance in the parents. In the cases of general paralysis dying in the Royal Edinburgh Asylum from 1873 to 1878, information in regard to the family history was obtained in 46 males and 7 females; and among these hereditary predisposition was found to exist in 20 males (42·5 p.c.) and in 2 females (28·5 p.c.)—a total of 40·7 p.c. of both sexes. Further, it has been said that the hereditary connections of general paralysis are not so much with insanity directly as with other nervous diseases, such as apoplexy and epilepsy, and again that the transmitted influence consists in a predisposition to congestion of the brain, which in its turn tends to the development of general paralysis; but in the case of C. W. it is a point of some curiosity and interest that both the father and the son were general paralytics.

With regard to causation, in C. W.'s case, the conditions which are regarded as the usual—indeed by some as the sole—causes of general paralysis, namely alcoholic excess, sexual excess, and prolonged mental worry and strain, are eliminated; and though it is very rare to find general paralysis following on an ordinary apoplectic attack, yet it seems probable that in C. W.'s case the brain lesion occurring at the age of 10 acted as a source of disturbance and irritation which ultimately led to the setting up of the morbid process of general paralysis.

A case of Puerperal Mania, ending in, and apparently cured by an Epileptic Fit. By T. B. WORTHINGTON, B.A., M.D., Senior Assistant Medical Officer, Sussex County Asylum, Haywards Heath.

Susan B., æt. 23, was admitted to this asylum on 15th January of this year, suffering from puerperal mania of an aggravated nature.

History of case.—She was confined of her second child three weeks previously, and shortly after parturition she became extremely noisy, excited and violent, she had to be held in bed and occasionally tied down; in a few days extreme prostration set in, and her life was despaired of for some time. Her mother states that one night about a fortnight after her confinement she had two fits, but from her description of them it seems more probable that they were merely loss of consciousness from anæmia than epileptic convulsions. She had been ailing for three months before her confinement, but had never suffered from mental aberration at any period of her life.

A paternal uncle died in Bethlem Hospital, and there is a history of phthisis in the family, but not of epilepsy.

On admission she was in a most enfeebled, neglected condition, and had an enormous bed sore on, or rather in her right buttock, in fact there was a suppurating cavity large enough to hold a cricket ball; there was also an ulcer on her left heel, and both her wrists were bruised and slightly lacerated; her pulse was very quick, but feeble. Notwithstanding the physical weakness she was in a state of great mental excitement, shouting loudly, gesticulating violently, and using most foul and disgusting language.

Progress of case.—She became quieter towards evening and remained so during the night, but had no sleep, and refused food the next morning; a mild aperient was administered, and she was ordered beef essence, a quart of milk, and two eggs daily, but no stimulants. She never refused nourishments again, and always took her food with apparent enjoyment. She gradually, but slowly, improved, though she varied greatly and was never two days alike, but was always somewhat

more composed and quieter in the morning than in the afternoon and evening. Chloral Hydrate in 25gr. doses was given at bedtime and at first produced sleep, but the effect soon passed off, even when the dose was increased to 30gr. When she had been three weeks in the asylum her physical condition was such that she was able to leave her bed for a few hours daily, but she was still noisy at night, and her conversation disgusting and obscene. There was but little change during the three following weeks, except that the bed sore was rapidly healing. On the 27th February when she had been six weeks under treatment, she had a strong epileptic fit, she rapidly recovered consciousness after it, but was sick and complained of headache. She slept well during the following night, and awoke quiet, composed and rational. From this date she never relapsed, and tried in every way to make herself useful and obliging during the remainder of her sojourn in the asylum. When questioned as to her recollections of her illness she stated that she remembered having a headache for some hours before the epileptic seizure, but that all that happened before was a complete blank in her memory. On 26th March she was discharged recovered.

The ordinary terminations of puerperal mania are recovery, death, chronic mania, or dementia. The first is fortunately the most common, the mental symptoms in ten days or a fortnight get less, the bodily health improves, the patient begins to take an interest in what is going on around her, and to employ herself, and this is shortly followed by convalescence. Ten cases of puerperal insanity were admitted into this asylum last year, and none of them ended fatally. Death generally occurs in those patients who have acute mania with great rapidity of pulse—several writers on the subject lay great stress on this point—and concurrent extreme exhaustion.

Some cases end in chronic mania and dementia, but they are chiefly those in which there is a strong hereditary taint.

None of the foregoing conditions were exemplified in the present case, the mental state had made but little improvement, and the patient could not be induced in any way to employ herself, and the obscenity of her language continued without the slightest abatement. Without any premonitory symptoms a true crisis, a rare event in medicine, arrived in the form of an epileptic seizure, and when the immediate effects of the paroxysm had passed off, perfect mental composure resulted, and to all intents and purposes complete recovery had taken place.

I have been unable to find any analogous case to this; epilepsy is often developed in the progress of insanity, and is

unfortunately a well-known and most serious complication, but no cases of mania, puerperal or otherwise, are recorded as ending in and apparently cured by an epileptic fit.

The question naturally arises what will be the future of this woman? Will she develop permanent epilepsy? If she again becomes pregnant will she suffer from puerperal mania? In answering these, the family history will be of some assistance. There is a hereditary taint of insanity, but not of epilepsy, and unfortunately in most cases of mental disease, complicated with hereditary transmission, there is a decided tendency to recurrence. The prognosis is therefore very unfavourable in the event of future pregnancies, but I hesitate to give any opinion as to the development of permanent epilepsy.

The Genealogy of a Neurotic Family. By WILLIAM W. IRELAND, M.D., Stirling.

The following is the genealogy detailed by me at the Branch Meeting of the Medico-Psychological Association held in Edinburgh on the 24th November, 1880, and referred to in the Proceedings published in the April number of this Journal. I am sorry that it has been as yet found impossible to trace the history of all the members of the family. Fearful that any relative should be annoyed by the publication of such details, even for purely scientific purposes, I have altered the names. The same fear lest the family should be identified has kept me back from giving public expression of my gratitude to some friends and correspondents who have helped me to correct and extend the genealogy. The place where the neurotic family lived is distant from my abode, and I have conducted the enquiry in great measure through letters, all of which have not yet been answered.

John Whaup, described as a worthy, sober, intelligent man, lived a quiet life in a lonely farm in a pastoral district of Scotland. He died suddenly from asthma. He is said to have had insane or peculiar collateral relations. Otherwise nothing remarkable is recorded either of the man or his wife, who still lives, though not in this country. They had three children, two daughters and one son, who were all more or less mentally weak. The eldest daughter, Euphemia, weak-minded, married George Scart, a shepherd, who in course of time succeeded to the farm. He is described as a dissolute and drunken man. They are said to have had nine children. One of them, Janet, was married to C. Cailzie. They had sons and daughters, some of

whom were imbecile; but these cannot now be traced. The Scarts had two other daughters, who are not exactly imbecile, but "rather weak and peculiar." One of them, Mary Scart, a field worker, has had five illegitimate children; two of them, T. Norrie and George Scart are imbecile, the three others being sane. Of the sons of George Scart and brothers of Mary Scart, three were imbecile, two were said to be sane, and another of them, Robert, who left his father's house when fifteen, was for several years a butler in a gentleman's family. Falling in love with one of the maid-servants in the house, and his affection being unreturned, he became melancholy, attempted to commit suicide, and has been for above nine years in a lunatic asylum.

The other sister of Euphemia Whaup, or Scart, Margaret Whaup, was imbecile, and lived in the farm house with her sister. She had to a labourer a daughter, Margaret—imbecile like her mother, but resembling her father very much in appearance. She also had to a shepherd, a man much younger than herself, but having a good family history, another daughter, sane. Besides this, two sons are indicated as slightly imbecile, and Robert Whaup, imbecile, now in the same asylum as his cousin, Robert Scart. It would seem as if Margaret Whaup was so liberal of her favours that some assigned the paternity of her children to her brother-in-law, George Scart. From this it appears that out of the descendants of John Whaup in three generations there were two weak-minded persons, one lunatic, nine imbeciles; and one daughter, married, "had sons and daughters, some of whom were imbecile." Save the two daughters and one son of John Whaup, all these ran in the female line.

The daughters of George Scart, as already said, were not imbecile, but "weak and peculiar," and easily seduced. Two of the male descendants seem to have been sane.

The only descendants whom I have seen were the imbecile boys, T. Norrie and George Scart. The father of T. Norrie was "a very clever engineer," now dead. There is nothing in his appearance which seems to throw light upon their hereditary deficiency. T. Norrie, the oldest, now eighteen, is healthy and well grown (height 5ft. 9in.). The younger, now eleven, is pale and somewhat more slender in frame (height 5ft. 1½in.). They bear a family likeness to one another. Both have fair hair and fair complexions, with large ears, and hair well advanced over the forehead. The site of the fontanelle is depressed in both, and they have both vaulted palates, but unusually good teeth. Norrie has the wisdom teeth in the lower jaw, which is rare in imbeciles. He is a very kindly-disposed lad, but not so intelligent as the younger, though his head is considerably larger. They both speak well, and can be taught to do some work.

From the genealogical tree appended the relations of the different branches of the family to the common ancestor can be readily seen:—

JOHN WHAUP (MARRIED).

Enphemia = George Scart,
(weak-minded).

2. Margaret, unmarried
(imbecile).

3. Thomas
(imbecile).

1. Margaret
(imbecile).

2. Isabella.

3. A son
(slightly imbecile).

4. Robert
(imbecile).

1. Janet = C. Calzie.

3. Thomas.

4. Mary

(unmarried),
field-worker. (imbecile).

5. Adam

6. John

7. Alexander.
(imbecile).

8. James

9. Robert
(unatic).

1. T. Norrie
(imbecile).

2. George Scart
(imbecile).

And three sane children.

"Sons and daughters,
some of them
imbecile."

OCCASIONAL NOTES OF THE QUARTER.

The Annual Meeting and Dinner.

The assembling of the International Medical Congress during the week of the Annual Meeting of the Medico-Psychological Association contributed, in some respects, to its success. The presence of distinguished foreign alienists was warmly welcomed by the Association, and, although the two meetings were entirely distinct, the general character of the Medico-Psychological received a special tone and impress from the international gathering.

The building in which the members met—University College—was kindly placed at their disposal by the Council, the Association being unable, owing to the occupation by a Foreign Army of the College of Physicians, to assemble in their accustomed rooms. Another circumstance which made the meeting a success was the presence of the Earl of Shaftesbury at the afternoon meeting, the only occasion on which he has honoured the Association by taking part in its proceedings. His Lordship's presence at dinner at Willis's Rooms last year is fresh in our remembrance, and this additional mark of interest in the Association, the members of which stand in so close a relation to the Board of which he is the head, will be long and gratefully remembered.

The Annual Dinner has become an increasingly important institution. It was always a pleasant one, but of late years it has brought the Association into contact with outside opinion and feeling, through the guests invited, and has afforded an opportunity of discussing questions of current public interest. This time the company of one of Her Majesty's Judges invited a reference to the plea of insanity in criminal cases and the test of responsibility, the opinion of the late Lord Chief Justice Cockburn in favour of loss of control as a test being cited as an indication of the growth of opinion among legal men in the direction so long urged by the Association. Mr. Justice Fry, while declining to be drawn into a discussion on this point, was not disposed to dissent from the enlightened opinion of Sir Alexander Cockburn, but felt that there must always be great practical difficulty in distinguishing between crime on the one hand and sin on the other.

Although the views of the Chief Justice have not been adopted in any Criminal Law Amendment Act, and have, indeed, been ignored by the Judges appointed to report on the general question, there is no mental physician that does not hold the Bench in the highest esteem, and the Association did not fail to regard it as an honour to have the company of a Judge whose culture and learning, apart from professional knowledge, are well known. To the Bench can be applied, without fear of contradiction, the lines in which Dryden described a prominent character of his day, an ancestor of Lord Shaftesbury—

Unbribed, unsought, the wretched to redress,
Swift of despatch, and easy of access.

One personal observation the writer may be permitted to indulge in. Dr. Bucknill, in proposing the President's health, which he did in the kindest terms, gracefully alluded to the work done many years ago by his ancestors in initiating the reform of the treatment of the insane in England. He would say here what the lateness of the hour prevented him saying at the time that, deeming it a privilege to be descended from those who, without reward other than that of an approving conscience, successfully struggled to ameliorate the then deplorable condition of the insane in asylums and workhouses, he is content to apply to himself the well known words of the Mantuan bard—

Sequiturque patrem non passibus æquis.

But if he follows his forefathers with unequal steps, none the less does he desire to see the improved condition of the insane maintained, and, where possible, still further improved.

There are two kinds of public opinion, the one morbid and irrational, the other sound and intelligent. The latter is based, indeed, upon the efforts made by scientific men themselves to create enlightened public opinion on this subject, to promote the comfort of the insane, and to devise the best means of providing for their care. Of such it behoves us to speak in terms not only of respect, but to welcome their efforts as beneficial and laudable; while of the former—irrational public opinion—our estimate may well be made on "Griffith's valuation." Certainly, from a very different source, arose the indignant protest which, in 1792, aroused a healthy sentiment in favour of the claims of those who were unable to speak for themselves, leading eventually to Parliamentary Committees, and, at last, to the legislation

which has embodied in law what humane men were striving to accomplish in their own practice and endeavouring to induce others to pursue.

An exceptional toast welcomed to the dinner the visitors from Europe, and America, and Canada. Professor Lasègue replied in appropriate terms. The members of the Association would have been glad to hear all their guests from other countries, but this was, unfortunately, found to be impossible for want of time, and therefore, at the risk of seeming invidious, only one was called upon to respond as the spokesman for the rest. On such an occasion it was felt that the term *Foreigner* was itself foreign to the feelings in every one's mind, and the quotation from one of Charcot's works made at the time in proposing this toast, may be repeated here: "Nobody ought to forget that Science belongs to no nation, and is the property of no race."

The "Prosperity of the Association" was duly honoured, and there certainly appears every reason for prophesying a fulfilment of the hopes expressed at the dinner for its future progress. Its watchword may be said to be "Forward" in three principal directions—in combined clinical and pathological observation; in the moral and pharmaceutic treatment of insanity; in specializing the provision suited for individual cases and particular classes of the community, *i.e.* securing the discriminative care and control of the insane, mentally and socially. These, once more to avail ourselves of the well-worn phraseology of Irish legislation, may constitute the three "F's" of the Medico-Psychological Association.

The International Medical Congress.

Had the denizen of another world regarded the Metropolis during the first week of August, he might have been puzzled to divine the cause of the extraordinary influx of strangers, the running to and fro, the babel of tongues in Pall Mall, and the throng in St. James's Hall. Had he been formerly a dweller on our globe, and an inhabitant of our island, he would certainly have concluded that our shores had been only too successfully invaded by a foreign foe, and that the English capital was at their mercy. As he might not have learnt that Peace hath her victories as well as War, the last thing he would have surmised to account for the scene on which he gazed, would have been an International Medical Congress.

Every lover of his kind, every one who wishes to see the rivalry of nations diverted from the diabolical study of the best means of destroying each other to the lessening of disease and suffering in the world, must rejoice that the development of our race has reached the point at which such international fraternization is possible, and now that the Congress of 1881 has become part of history, must also rejoice that it has proved a complete success, thanks to the various office-holders who have so laboriously worked at their several posts of duty, from the President, Sir James Paget, and the Honorary Secretary, Mr. (now Sir William) Mac Cormac, downwards, or rather on all sides. To suppose that the deliberations of 3,210 medical men, holding 119 meetings (sitting 293 times), along with 464 written or spoken communications, will not accelerate the growth of medicine, would be an insult to the learned men who thus congregated and delivered themselves of their opinions.

The attendance of members in the section for Mental Diseases was highly satisfactory, and compared favourably with some others. The interest was sustained to the last. Dr. Lockhart Robertson fulfilled his office of President with the courtesy and ability to be expected from him, and his Address contained a large amount of information on English asylums, which was calculated to be useful to foreigners visiting our country. The Secretaries, Drs. Gasquet and Savage, were indefatigable in their attention.

It was much regretted that the time at the disposal of the Section was disproportionate to the number of subjects to be discussed and the papers prepared. Several highly important questions in the programme, which might have been debated with the greatest advantage, were never taken up at all. Most to be regretted of all was the circumstance that the communication from Dr. Ashe on General Paralysis, the discussion of which was looked forward to with special interest, and on which Irish psychologists came prepared to give valuable information on the seeming comparative immunity of their countrymen from the disease, was passed over. We cannot be surprised that this untoward circumstance caused much and general dissatisfaction. The collapse of Dr. Beard's demonstration was, under the circumstances, inevitable, but when Professor Preyer had given up his return to Germany at great inconvenience, in order to attend it and discuss the question, and when he, Dr. Braid, and many others assembled at the appointed place, it is greatly to be regretted that no responsible person was

present to ask the Professor to speak himself, and give the results of his latest researches in hypnotism. Those who assembled would then have felt repaid for their trouble in coming. However, it is useless to cry over spilt milk, and we refer our readers to the abstracts of the papers read or taken as read, prepared by their authors for the Section, and the discussion upon them. (See Notes and News, No. 2).

*Suggestions and Reasons for Seeking, in a New Form, Statistics of the Causation of Insanity by Intemperance.**

1. The importance of this subject is demonstrated by the amount of discussion, and therefore a sure basis for argument should be procured.
2. Existing statistics are insufficient, because they do not attempt to dissociate and analyze the relations between Insanity and Intemperance.
3. There is no attempt to show whether Intemperance is combined with any other agent.
4. Existing statistics approach the subject from the insanity aspect; that is to say, they only show that out of a given number of cases Intemperance is assigned, whereas to obtain a satisfactory result, the endeavour should be to show how many cases have been caused by Intemperance, and in what manner this has been done.
5. The statistics now proposed to be obtained will afford an opportunity of analysing types of causation and types of results, and will also provide for individual cases being worked out.
6. They will also be in such form as to reach Private Asylums, the numbers in which are so small as not to afford any very useful statistics in the ordinary way.

PRINCIPLES ON WHICH IT IS PROPOSED TO ASK THE ASSOCIATION TO ADOPT THESE TABLES (*for one year only*).

1. The Association is far reaching, and covers more ground than any other body, such as a Lunacy Board, and by its authority can give more weight to the inquiry than any private individual can hope to bring to bear.

* This communication was prepared by Dr. Newington for the Statistical Committee of the Association. It was decided to have it printed in the Journal, in order that it might come under the notice of the members, and receive the attention which it so manifestly deserves.—[Eds.]

2. The Association, we hope, contains almost all whose opinion and experience are worth having.
3. There is no other channel than the Association for enunciating such collected information.
4. The information thus obtained will be on uniform lines.
5. The result will be important and be worthy of the Association.
6. (Should this experiment be adopted, and succeed, it will form a valuable precedent and guide for obtaining in a similar way trustworthy information on other debatable matters, one year being devoted to one subject.)

EXPLANATION AND REASONS FOR INTRODUCING VARIOUS COLUMNS.

- Column 1 is for initials or the asylum number of each case to facilitate any reference to it by a reporter.
- Column 4 will show, with 11, the liquids that are chiefly used by each class, and the temptations and risks attached to each calling.
- Columns 5 and 6 will elucidate the commutation of Insanity and Intemperance in individuals of a family.
- Columns 7 and 8 will do the same for various phases in the same individual.
- Column 9 gives an opportunity to the reporter of clearly stating among other things the important point whether the patient has drunk because he is mad, or is mad because he has drunk.
- Column 10. In the notes below the Table are set out six forms of Intemperance.
- Column 11 is introduced for the purpose of ascertaining (in combination with 16, 17, 18, and 19) whether the forms of Insanity are found to vary, *ceteris paribus*, with the nature of the Intoxicant. It seems reasonable to suppose that the malt type of liquor, acting not so much as a rapid poison as a slow inhibitor of healthy function will bring about less active forms of insanity than the spirit or wine types.
- Columns 12, 13, 14, 15, are intended to show whether the Intemperance was in combination with any other agent, and, if so, to what degree. To the two usual terms "Exciting" and "Predisposing" is added "Determining," to catch the many cases in which liquor could only be charged with fixing the exact time for the onset of an impending attack of insanity.

..... ASYLUM.

INTERPERANCE TABLES,

Setting forth particulars of every Case in which Intemperance was assigned as a cause.

MALES (or Females).		HISTORY OF THE CASE.										HISTORY OF THE ATTACK.					PROGRESS OF THE CASE.				Total number Admitted in
Initials or Asylum No.	Age.	Calling or Profession.	Hereditary Predisposition to Insanity.	Hereditary Predisposition to Intemperance.	No. of Previous Attacks of Insanity.	No. of Previous Attacks due to Intemperance.	Cause (if any) of Intemperance.	Nature of Drinking Habits.	Nature of Intoxicant most used.	Was <i>Drunk</i> ?	Exciting?	Determining?	12, 13, 14, In-distinguishable.	15	16	17	Acute or Chronic?	Form of Mental Disease.	Actual Result (if any).	Probable Result.	Number of Cases in which Intemperance was assigned.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Observations.
	1																				
	2																				
	3																				
	4																				

There will be provision for (say) 20 Cases on each Sheet—separate sheets for male and female cases.

In filling up the columns, please use the subjoined letters where necessary:—

- Columns 5 and 6. G—Grandfather or Grandmother.
- Column 10. O—Occasional debauch.
- P—Father. P—Pay-day debauch.
- M—Mother. B—Boozing.
- B—Brother. H—Habitual drunkenness.
- S—Sister. R—Recurrent Dipsonania.
- C—Children. C—Continued Dipsonania.
- O—Other blood relations.

In Column 9, if in your opinion the intemperance was the result of insanity, say so clearly.

If any item of information can be given with tolerable certainty, please put X in the proper place. If there is only suspicion, put (?). If no information can be got, put (—).

The object aimed at by the above table will be much furthered by your kindly supplying, on a separate sheet—

- Points of interest in any case, such as hallucinations, and especially the occurrence of any neuroses.
- Information as to the general habits of the classes from whom your patients are drawn; the influence of any general circumstances—e.g., strikes, famine, distress, etc.
- Your opinion as to the relations of insanity and intemperance, put as concisely and categorically as possible. These remarks only to apply to causation, and not to extend to either the treatment or medico-legal aspect of the matter.
- Any other point that seems to you to deserve report.

H. HAYES NEWINGTON, L.R.C.P.

- Column 17. A—Acute.
- Column 19. R—Recovery.
- S—Sub-acute. I—Discharged improved.
- C—Chronic. T—Transferred.
- Ma—Mania. N—No chance of recovery.
- Me—Melancholia. D—Death.
- G.P.—General Paralysis.
- D—Dementia.

- Column 17. S—Sudden.
- Column 19. G—Gradual.
- A—Acute.
- S—Sub-acute.
- C—Chronic.
- Ma—Mania.
- Me—Melancholia.
- G.P.—General Paralysis.
- D—Dementia.

Columns 20 and 21.

The Open-Door System.

I answer Dr. Needham's queries categorically, and in so doing have to repeat what I have stated in various reports, and in the columns of the "British Medical Journal." I take his questions *seriatim*.

1. Has the open-door system been tried in mixed asylums, or in asylums exclusively for patients of the private class? And if so, with what results?

The system was tried by me about ten years ago, in the Fife and Kinross District Asylum, which is almost exclusively an establishment for pauper patients. I found it work perfectly easily from its very commencement, and never had the slightest reason to regret the experiment. I believe the experience of my successors in the superintendentship of that hospital has been identical with mine. As long as I held that office I had about seven per cent. of my patients under lock and key; but Dr. Rutherford, of the Barony Parochial Asylum, Lenzie, near Glasgow, has been able to carry out the system to the full, and in an establishment containing a purely urban pauper population has found it possible to open every door in his asylum. By so doing he has applied the most crucial test to the practicability of the system. The system is also in full operation in the Midlothian and Peebles District Asylum, Rosewell, near Edinburgh. I need hardly say that I adopted this plan of management when I took charge of the Saughton Hall Private Asylum, near Edinburgh, where I never experienced the slightest difficulty in carrying out the system thoroughly. In fact, I cannot see the slightest reason for using locked doors in such an establishment. I refer Dr. Needham to the Reports of the Commissioners in Lunacy for Scotland as to their experience of the working of the system.

2. Where it has been tried in any asylum, has it been in operation for sufficiently long periods to test its practicability throughout the whole asylum without limitation of class or case? I think this question has been answered. In the four asylums I have alluded to the system has been at work for several years with good results. I leave the superintendents of the Lenzie, Fife and Midlothian Asylums to narrate their experience separately should they see fit.

3. Has it involved such an amount of additional expense as would render it practically incapable of general applica-

tion? As far as my experience goes, it involves no increase of expense either in pauper or private asylums. I never added to the staff in consequence of its adoption either in Fife or at Saughton Hall.

4. Has it been shown to be essential to its efficient operation that patients should be able and willing to employ themselves during the greater part of each day in physical labour? In answer to this query I need only state the generally accepted axiom that the success of any relaxation of discipline in a Lunatic Asylum depends on the proper management of patients as regards employment and recreation, and that anything which tends to reduce the irritation of confinement does away with the necessity of mechanical restraint.

5. During its operation, what precautions have been adopted to secure quiet patients from annoyance from those who are noisy? The suicidal and homicidal from opportunities of suicide or homicide? The destructive, dirty, indecent, erotic and mischievous from the gratification of their respective propensities? and those who are disposed to escape from the dangers which might, and probably would, attend their escape? No special precautions have been taken by me against the dangers and difficulties anticipated in this question. On the contrary, I have found the necessity for such precautions much diminished, and the tendency to degradation much lessened. Certainly the desire to escape has not been nearly so marked since the adoption of the system as previously; in fact, I cannot recollect of any escape as a direct consequence. In Saughton Hall, during the four years in which the system has been in operation, I have not had a single escape through an open door. Of course attendants are directed to pay special attention to restless patients, but this surveillance is not more close than were the patients locked up.

6. Is there presumably anything in the Scotch character and education which renders an experiment of this kind practically possible among them, and impossible in another, more excitable race? The answer to this query is that in the Lenzie Asylum, where the system is very thoroughly worked, the population is derived from a manufacturing town, and comprises English and Irish as well as Scotch.

I have been accused of "vaunting" the open-door system. This, as far as I remember, I have never done, and I do not mean on the present occasion to say more than that it has worked beneficially for both patients and officers in the insti-

tutions in which it has been tried. The best means for Dr. Needham to test the working of the system is to visit the various asylums with open doors. I am sure each superintendent will welcome him, and give him every opportunity of observation.

J. BATTY TUKE, M.D.

PART II.—REVIEWS.

The Croonian Lectures for 1881. The Influence of the Circulation upon the Nervous System. By WALTER MOXON, M.D., F.R.C.P.*

The College of Physicians made a happy choice in selecting Dr. Moxon to deliver the Croonian Lectures for the present year. His easy and fluent, yet thoughtful, style is well known; and those who take up these Lectures expecting to find something new placed pleasantly before them will not be disappointed.

The subject, "The Influence of the Circulation upon the Nervous System" is one of great interest from various points of view; but more especially in regard to treatment. We cannot, however, say that we quite agree with all the conclusions arrived at by the lecturer. For, although he contributes many facts of importance and with admirable lucidity interprets their hidden and unobvious meaning, some of his opinions appear to be based on insufficient evidence or on evidence that would point rather in an opposite direction.

For these reasons we think that a detailed analysis with a few critical remarks is called for.

The chief subjects treated of are the means by which blood pressure in the brain is regulated; the effects of alterations in blood pressure, including a somewhat minute examination of the various conditions known as congestion of the brain. In addition to these points the state of the circulation in epilepsy and in angina pectoris is dealt with.

The means by which the blood pressure is regulated are detailed with great fulness. They are, shortly, the cerebrospinal fluid; the suction power of the skull; and certain automatic mechanisms of the blood-vessels, which will be described presently.

In regard to the suction power of the skull it is noted that

* Delivered before the Royal College of Physicians.

the cranium in the adult, being closed everywhere but at its base, must by virtue of atmospheric pressure always remain full. From this may be inferred the use of the cerebro-spinal fluid. When the supply of blood to the brain is small, the cerebro-spinal fluid rushes in to equalise the pressure; when blood is abundant in the brain the cerebro-spinal fluid is scanty.

The channel by which this fluid passes between the ventricles of the brain and the sub-arachnoid space of the spinal canal is minutely described, because it is passed over almost in silence by the text books on anatomy. The opening is in the middle line and is situated exactly over the spot where the central canal of the spinal cord joins the fourth ventricle.

The automatic mechanisms spoken of above whereby the blood pressure is regulated, are two. One automatically checks the too violent entry of blood into the brain; the other automatically retards its too copious outflow.

The first of these interesting mechanisms is the pressure of the cornu of the fourth ventricle (the portion that contains the choroid plexus) on the roots of the vagus. The fact of the pressure is proved by the disconnection of the two parts in early life and their firm union in later life, especially in cases of chronic distension of the ventricles of the brain. The effect of such pressure is shown both by clinical evidence and by experiment. Stimulation of the vagus diminishes the heart's action, and gentle pressure has the same effect. Now when the heart acts violently, the choroid plexus, like other blood-vessels, will become distended with blood; and the finger-like cornu of the fourth ventricle, which contains the blood-vessel, will press upon the vagus; and thereby the action of the heart is moderated. This contrivance therefore is analogous to the ball-tap of a cistern.

The mechanism whereby the too ready outflow of blood from sudden changes of posture is prevented is to be found in the construction and arrangement of the veins and sinuses of the brain. The longitudinal sinus receives its veins in a direction opposite to its own current. The result of this junction of opposing streams is to neutralise the velocity of the outgoing blood, so that it is converted from a current to a mere overflow. While in case of a strong current of blood through the brain a weir or escapement is provided beyond the lock by means of the inferior longitudinal and straight sinuses for the blood from the inferior parts of the brain.

An explanation of the Pacchionian bodies is found in the retardation of the blood from the confluence of opposing streams. Chronic delay in venous blood wherever it occurs gives rise to fibrous growths and thickening; as in the capsules of the liver and spleen from heart disease and cirrhosis.

The next matter that the lecturer takes up is the important one of the effects of alterations in blood pressure upon the brain; and he proceeds to show that congestion *per se*, congestion apart from strangulation and asphyxia, does not produce symptoms; and that this is so whether the congestion be arterial or venous.

The subject has been complicated with the phenomena of strangulation and obstruction. For example when school children bending over low desks suffer from headache, become faint, and bleed at the nose their symptoms may be ascribed to congestion. But Virchow shows that the evil effects of studying at low desks arise from three sources in combination. There is first the mental strain, next the occasional check to respiration from close attention, and lastly obstruction to the veins by bending the neck, &c.

As an example of pure and uncomplicated arterial pressure Dr. Moxon gives the case of men working in compressed air at great distances under water. In the construction of the great bridge across the Mississippi at St. Louis, the air chamber reached the great depth of 90ft. below the surface of the water. Dr. Moxon calculates that at that depth the atmospheric pressure is such that the whole vascular tension within the cranium is raised three times the greatest morbid arterial tension due to the intrinsic forces of the circulation. We cannot however admit the principle upon which the calculation proceeds, that the atmospheric pressure squeezes the blood out of the body into the head. "There is one power by which blood can be sent into the vessels of the brain with certainty and with any degree of force that may be desired, and that power is atmospheric pressure. It needs no experiment to show that great increase of atmospheric pressure must drive the blood away from the surface of the body, and into any parts that are accessible to blood and not to air; such parts are the interior of the cranium and spinal cord. Even moderate degrees of pressure, such as an addition of half or three quarters of an atmosphere, have been noticed by Pétrequin and Sandahl to cause the disappearance of a tolerably considerable hyperæmia of the conjuction."

If this be correct why is not the blood driven from the lungs? and why does asphyxia not occur? Whereas in fact asthmatics are relieved. But a little reflection will show that atmospheric pressure cannot have any mechanical tendency to drive the blood from the skin. Atmospheric pressure is equally diffused over the whole body; it is not local, it is general. The pressure without is transmitted to the deeper parts which must of necessity, to be in equilibrium, re-act with an equal force. There will not therefore be any change in the relative disposition of the parts. An equally diffused pressure over the whole body could congest the brain only on the supposition that the structural elements of the body actually underwent condensation. Now it is a well known fact that solids are almost incompressible, and liquids are only very slightly compressible. Gases, it is true, are highly compressible; but it is hardly probable that the gases dissolved in the body when subjected merely to increased atmospheric pressure would shrink so as to occupy a smaller bulk than before; and if they did shrink it is at least likely that under the high pressure air would be absorbed to take their place. If the body really were compressed the proof would be easy. The circumference of the limbs and of the chest would be smaller; the abdomen would of course in any case be squeezed in as the pressure within would not equal the pressure without. We believe then that the blood-pressure that arises from compressed air cannot, mechanically at least, give rise to cerebral congestion in any strict sense of the term.

The symptoms that follow prolonged exposure to highly compressed air are very interesting. One of the most noteworthy points is that the symptoms do not occur until the return to the ordinary atmosphere; about one half the men however did not suffer any ill effects. The next point is the nature of the symptoms. These were muscular paralysis of the lower limbs rarely accompanied by pain; and occasionally the arms were affected. In severe cases there was a good deal of pain in the joints. Recovery, with the exception of a few fatal cases, took place in a day or two. During exposure to the high pressure a general feeling of buoyancy was observed.

Dr. Moxon does not attempt to explain the delay of the symptoms until after re-entering the ordinary atmosphere. We venture to suggest as a partial explanation that air may be absorbed by the blood under high pressure and released

when the pressure is removed. The lecturer gives, however, a highly ingenious and probable explanation of the fact that the lower limbs are the only parts to suffer. The reason is found in the blood supply of the spinal cord. The cord is supplied by long slender vessels given off from the vertebrals, one running down in front and two behind. These vessels are reinforced by small arteries entering the spinal canal along the roots of the nerves. The reinforcing vessels increase in length with the nerve roots towards the lower part of the cord; and at the caudal extremity they are so long and slender that the blood supply through them is precarious. This is proved by the effects of injections in the dead subject. Confirmatory evidence is derived from clinical cases, and from the effects of many poisons, the paraplegia in such cases appearing to be due to failure at its weakest point of the blood-supply from depressed circulation.

The only other example of uncomplicated arterial cerebral congestion that is given is a case of aortic regurgitant disease with greatly hypertrophied heart. Dr. Moxon does not think that a hypertrophied heart would generally congest the brain; but believes that occasionally it does so. In the case he instances, the effect "in the temporal and radial arteries is remarkable; they are bent into a meandering form, and are tense to touch, each beat of the heart making them spring rather sharply. Those who witnessed the force evidently at work within these arteries, and conceived the same action as going on within the cranium, formed the impression that the arterial strain must be excessive there, allowing all that the bend of the carotid canal could do to moderate the distension of the arteries in their transmission through the base of the skull. Yet this man said that his head was quite free from unpleasant sensations." From this statement it would appear that not merely the patient's head but his whole body was in a state of arterial congestion. But we think that few people would apply the term congestion to the rapid and momentary hyperdistension of the arteries in aortic regurgitation.

The next evidence put forward to show that congestion of the brain does not produce symptoms deals with venous congestion. Cases where there was evident obstruction of the jugular vein were remarkable for the slightness or the absence of cerebral discomfort. One of the most clear-headed and intelligent patients Dr. Moxon has seen had the neck enlarged so that, shortly below the chin, it exceeded

the girth of the head and face, and these were livid with venous obstruction; yet she denied every sign of cerebral annoyance. "When such ascertained venous congestion, producing obvious retention of blood, fails to cause serious symptoms, unascertained and unproven congestion cannot be called in as a supposition to explain serious symptoms."

The next step is to show that it is impossible from *post mortem* examination to say whether congestion has been present during life. If the cervical veins be not opened we shall be sure to see frightful congestion of the membranes of the brain and spinal cord, whatever may have been their condition before death. There are four signs that are taken to prove congestion: (*a*) a swollen state of the brain; (*β*) a distension of the veins and capillaries with blood; the veins being tortuous and varicose, the grey matter dark, both it and the white matter presenting an abundance of bloody points and gorged vessels; (*γ*) tortuosity and varicosity of the larger veins; (*δ*) "blood or hæmatin around the vessels, twisted and varicose capillaries, evidence of bursting of capillaries, orange coloured spots and specks of crystalline hæmatoidin, and especial stress is incidentally laid on the observation of blood pigment around the vessels in the brains of excitable lunatics."

Dr. Moxon takes up these points *seriatim* and demolishes them one by one. He has never witnessed a general hypertrophy of the brain; and the swollen state mentioned as the first proof has never been observed by him except there was some obvious cause of expansion; such, for example, as increase of intraventricular fluid, apoplectic bleeding, or a tumour.

The next point in *post mortem* examination that is held to establish congestion during life is distension of the veins and capillaries with blood. The experiments of Kussmaul and Tenner however show that the state of the vessels during life cannot be inferred from their condition after death. Their fulness or emptiness depends upon the nature of the act of dying. For example in death from mitral disease engorgement will naturally be found.

The next *post mortem* conditions usually laid down as evidence of cerebral congestion are tortuosity and varicosity of the larger veins. On this the lecturer says—"Now if by this is only meant the bending of the veins through overfulness, it is but a sign of that overfulness; and Kussmaul and Tenner have disposed of overfulness for us. But if it be

really meant that the veins are varicose, I think moderation of the description is desirable; at least in the several thousands of inspections conducted by me I never saw a varicose vein upon the brain."

We now come to the last point advanced as pathological evidence. Marks are found which signify that capillaries have burst. Blood, hæmatin, and hæmatoidin are found round the vessels. And especial stress is laid on these points in the case of excitable lunatics. Dr. Moxon, however, speaking from his own large pathological experience, declares that these changes are so constant in the brain of all adults that no special significance can be attached to them.

The clinical evidence comes next in review. Cerebral congestion is said to show itself in four different forms: the convulsive, the apoplectic, the febrile, and the delirious. The two first, the convulsive and the apoplectic, are shown to be really epileptic.

The febrile form is that which occurs in connexion with elevated temperature. It is marked by dull oppressive headache; over-excitement and drowsiness may alternate, and there may be delirium and convulsions.

As a special example of this form Dr. Moxon takes the group of cerebral symptoms that occur sometimes in the course of rheumatic fever as "cerebral rheumatism;" and he advances what he holds to be decisive evidence of the absence of congestion. Formerly he tried bleeding and large doses of brandy and large doses of quinine, but all the patients died. On the contrary a patient with a temperature of 106° and muttering delirium passing into insensibility, by being put into cold water quickly lost his symptoms. Dr. Moxon argues that the cold must have sent the blood from the skin to the deeper organs, including the brain. This is of course true, and, if the head was not also exposed to the constringing influence of cold, is decisive against congestion as the sole *cause* of the cerebral symptoms. But Dr. Moxon goes farther and says that it is decisive evidence that in "cerebral rheumatism" there is no congestion of the brain but the exact opposite; an argument altogether inconsistent with his own special thesis that congestion of the brain does not produce symptoms. To be consistent, he should say that congestion might have been present; but that the symptoms were due to other causes, such, for example, as over-heated blood. It is noteworthy that the patients treated with large doses of brandy all died; a fact that certainly does not prove

the brain to have been anæmic. In any case, however, if Dr. Moxon is fully persuaded of the soundness of his theories respecting the action of compressed air and the pathology of febrile cerebral congestion, he has at hand a crucial test. It is only necessary to place a patient, like the one mentioned, not in a cold water bath, but in a chamber of compressed air, and watch the result.

We now come to the last form of cerebral congestion, the delirious. Alienist physicians and brain specialists are flouted with using the term "congestion of the brain" as a mere cover for ignorance. Mania, oppression and stupor, stupidity, are all put down to congestion of the brain. A case, however, is related in which a medical man refused to certify to a patient's insanity because he thought the patient was suffering from congestion of the brain! Elsewhere in these lectures there is another ungracious and unmerited gibe. "Numerous broken ribs are not unfrequent morbid signs in asylum anatomy." Such remarks may be passed over in silence—they are so obviously unjust, though no doubt said in perfect good humour.

In regard, however, to the question of fact—What is the condition of the brain in mania? Dr. Moxon records an interesting case, which he considers establishes his opinion respecting the absence of congestion. He says: "In a severe case of delirium, which occurred in a man with cardiac dropsy in Philip Ward of Guy's Hospital, I put the matter to a severe test. The miserable man, after weeks of breathlessness and sleeplessness, became insane, with the symptoms I have read to you as those of cerebral congestion. I had his pillows taken away, and kept him asleep with chloral for three days. At the end of that time he was allowed to wake, and he was then quite sane again; and he afterwards recovered so far as to lose his dropsy and leave the hospital. I believe that if I had kept his head high he would have died. The symptoms were those of exhaustion in an anæmic brain." Before anæmia is taken as proved by this case it would be necessary to show that chloral congests the brain or at least that it does not prevent congestion of it. Whereas most observers believe that after a short preliminary stage it causes anæmia of the brain, in that respect resembling natural sleep. At any rate it congests the skin.

It is not disputed by any one that there is a delirium of exhaustion. And we believe we express the opinion of alienists, not less than of the profession in general, when we

say that the quality of the blood is not less important than the quantity of it; and that the point of departure in delirium may be, not in the blood at all, but in the nerve tissue itself.

We are glad to turn to the two remaining subjects of these lectures—epilepsy and angina pectoris—though we regret that space forbids a detailed analysis.

It is shown on the one hand that it is impossible that epilepsy could be caused by arterial spasm. While on the other hand evidence is given that the heart's action is arrested immediately before the onset of the seizure. Hence the convulsions; and thereafter the deep sleep of exhaustion when the brain "is closed for repairs." But the pneumogastric impulse that stops the heart is of unknown origin, and how far its influence extends to the convulsions and unconsciousness we cannot tell.

In angina pectoris it is shown that high arterial tension is not the determining cause, but only one factor in some cases. Angina pectoris is in fact likened to toothache. In some cases there is tenderness, as when the heart is not equal to its work in aortic valvular disease. In such cases amyl relieves. In other cases the cardiac nerves are involved in the inflammatory decay of the arteries. Here amyl is useless, and morphia is our chief hope.

In conclusion, these Lectures are highly suggestive, and deserve careful study and consideration.

Il Suicidio, Saggio di Statistica Morale Comparata. Del Prof. E. MORSELLI, Direttore del Manicomio di Maccrata. Milan, 1879.

This is an octavo volume of above 500 pages upon suicide. This subject is one which gives a ghastly interest to romance and even a picturesque variety to real biography or history; but Professor Morselli has no intention of treating it in a dramatic way. He belongs to the school of Quetelet and Guerry, who, disdaining the guesses of clever writers caught up from a superficial view of human nature, resort to the columns of figures of the Registrar-General to gain the real laws of human conduct. Such authors work a few facts out of a large number of figures; some of them of real importance, others trivial and incomplete. Not unnaturally they dislike to suppress any part of their statistical labours, and

we are thus loaded with details which few people care to know, and no one is able to remember. It may be interesting to know how many people in a given number destroy themselves, but whether they effect their object by poison, or drowning, or fire-arms, is a matter that does not require pages to discuss. After all, these statistical facts do not make us much the wiser. When Buckle shows that one man in 30,000 marries a woman old enough to be his grandmother, this gives us very little explanation as to the motives of such extraordinary conduct, and it is clear that it is precisely the motives that the philosophic inquirer is anxious to know. A man may marry an old woman for money, or out of gratitude as Howard did, or because he is very short-sighted like Mr. Simpson, as related by E. A. Poe, or simply because he has a genuine æsthetic preference for old women to young ones. We once knew, at least by sight, a medical man who married a woman sixteen years older than himself, and after being left a widower he married a woman apparently some twenty or thirty years older. Neither of these ladies were rich. It is clear that a personal acquaintance with this gentleman would throw more light upon his eccentric conduct than the barren piece of information that he stood to other men in the relation of one to thirty thousand. However, though a good part of this book is somewhat dry, there is no denying that the work is done in a most complete and conscientious manner. Morselli shows that the number of suicides is regularly sustained in different countries, and that it is commoner among some races and nations than amongst others. He inquires into the effect of religion and moral training as hindrances to suicide, and the physical and moral influences which lead to it. He ends with a chapter on the nature and prophylaxis of suicide. The book is illustrated with maps and diagrams in the style of Guerry. We have a coloured map of Europe, with shades of red indicating the frequency of self-murder as ascertained by statistics in the different provinces and countries of Europe. The districts where it is rarest are Calabria, Portugal, Sardinia, Dalmatia, Ireland, some provinces of Italy and Spain. It is rarer in Scotland than in England, and is common in Prussia and Austria. The reddest spot on the map is the Isle of France, where suicides are to other deaths in the proportion of 330 to the million. It may help our knowledge of human nature to consider what would be the motives which would induce a man to commit suicide,

and compare them with Morselli's figures. Some of the causes given are too vaguely expressed, such as misery and disgust of life. The commonest cause is financial distress and domestic annoyance. Love does not seem so often to blame as one expects, though twice as often with women as with men. Double the number of women commit suicide through jealousy.

In Italy, and above all in the province of Emilia, love is a more frequent cause than in other countries. According to Morselli men are more inclined to commit suicide on account of pecuniary losses, and women on account of passion, shame, and remorse.

Some people have argued that all suicides are insane, meaning, possibly, that the act of self-murder should of itself be held a sufficient proof of a deranged mind. It is not worth while discussing this; but there is no doubt that a large proportion of suicides are also lunatics.

Morselli finds that by adding together the cases of mental alienation, pellagra, *tædium vitæ* (a form of melancholia), and physical disease, 50 per cent. of the suicides were owing to pathological causes. Pellagra or pellagrous insanity is a potent cause.

Block states that about one-third of the suicides in all countries are owing to insanity at the time of the perpetration of the act, and that the returns show a steady regularity year by year. The proportion of insane suicides to other suicides in France is about 300 to the thousand; in Prussia it is 333; in Saxony, 348; in Belgium, 470; in Italy, 343; in Wurtemberg, 400; and in Bavaria, 432. As every one knows, the statistics in England are much vitiated by the desire of the juries to bring all suicides in as the result of insanity or temporary impulse owing to cerebral disease, in order to secure Christian burial and to save life insurance money to the relations.

From the Bavarian statistics, the only ones available, it appears that a hereditary tendency to suicide was shown in 13 per cent. of the known cases. Instances of suicide with infanticide in the puerperal condition are frequent; they amount in Italy and in Prussia to 22, in France to 29, and in Norway to as many as 56 in the thousand suicides. These are generally girls seduced and deserted, and their responsibility for criminal actions committed in this condition, Morselli remarks, is doubted by physicians of the somatic school. In the puerperal state there are bodily weakness

and diminished self-control with hyperæsthesia of the nervous system. When in addition to this these poor women have to bear a load of shame, remorse, indignation at the treachery of their seducers, and despair of the future, one cannot be much surprised that they should seek to escape the light of day.

Morselli tells us that in observations made in Wurtemberg during 1873 and '75 upon 594 bodies of suicides there were found lesions of the brain and its membranes 265 times, *i.e.*, 45 per cent.; lesions in other organs, 98 times, *i.e.*, 16 per cent.; and negative results in 231 cases, 39 per cent. Amongst diseases of the brain, the commonest were chronic meningitis, adhesions of the pia mater to the grey substance, atheroma of the arteries, varicosities of the veins, and osseous growths within the cranium. In the alterations of other organs, the most frequent were abnormal positions of the intestines and stomach so frequent with the insane, abdominal tumours and degeneration of the liver. Less common were diseases of the genito-urinary organs, ovarian cysts, hydatids of the kidneys, Bright's disease, enlargement of the prostate and stricture of the urethra. Diseases of the heart and arteries were rarest on the list of lesions found.

The work, an octavo volume of above five hundred pages, is the twenty-first volume of the International Scientific Library, which is made up both of original work and translations of the books of established merit. In this series the volume under review can claim a worthy place. It exhausts our present knowledge of the subject. Professor Morselli has shown unwearied industry in collecting information from every available source; and the work shows a power of generalisation and a liberal and philosophic spirit which ought to commend it to the attention of the philosophic inquirer.

In Memory of Edouard Seguin, M.D., being Remarks made by some of his Friends at the Lay Funeral Service, held October 31, 1880. G. P. Putman and Sons, New York.

The name of Edouard Seguin will long be pre-eminent amongst those who, to use the forcible expression of Esquirol, have laboured to remove the "mark of the beast" from the forehead of the idiot. Forty years and more have

passed since the world awoke to a sense of its duty towards these waifs and strays of humanity; and during these forty years the spirit of Seguin would seem, in one way or another, to have animated the work on both sides the Atlantic. A brief obituary notice has already appeared in this Journal (Jan. 1881, p. 643), and it is not our present intention to do more than to refer to some of the salient points of the addresses delivered at the funeral of Dr. Seguin, now printed in the form of a memorial volume.

In these addresses by Drs. Brockett, H. B. Wilbur, George Brown, and Marion Sims, we find not merely the admiring tribute of personal friends, but the appreciative criticism of scientific collaborators. The remarks of Dr. Brockett supply interesting information as to Seguin's early career, political as well as professional; and those of Dr. Marion Sims testify to the value of his labours in connection with the general practice of medicine, specially as regards various means for promoting uniformity of scientific observation. The addresses of Drs. H. B. Wilbur and George Brown, themselves superintendents of well-known American institutions for idiots, refer more particularly to his labours in the field of idiocy.

At the present time it is not easy for us to realise the absolute hopelessness with which efforts to ameliorate the condition of the congenitally imbecile were regarded by psychologists and physicians at the period when Seguin commenced his labours at the Bicêtre. The standard "*Dictionnaire de Médecine*," published in 1837, had broadly stated, "It is useless to attempt to combat idiotism. In order that the intellectual exercise might be established, it would be necessary to change the conformation of organs which are beyond the reach of all modification." And even Esquirol himself had penned these desponding words: "Idiots are what they must remain for the rest of their life; everything in them betrays an organisation imperfect or arrested in its development. We do not entertain the idea of its being possible to change this condition. No means are known by which a larger amount of reason and intelligence, even for the briefest period, can be bestowed upon the unhappy idiot." Providentially this pessimism was not allowed to prevail; and whilst Guggenbühl on the Abendberg, and Saegert in Berlin, were independently working out plans for benefiting the cretin and the imbecile, it was Seguin who, in the wards of the Bicêtre at Paris, was most conspicuously

demonstrating the means of which Esquirol had despaired. There is little doubt that to Seguin, who commenced his labours in 1837, is due the credit of priority in the work of the reclamation of idiots, although with characteristic modesty he himself avers that "at certain times and eras the whole race of man, as regards the discovery of truth, seems to arrive at once at a certain point, so that it is hard to say *who* is the discoverer." Step by step the work progressed, and gradually it earned recognition at the hands of the leaders of medical opinion. Thus in 1843 we find the illustrious Voisin, in a paper read before the Royal Academy of Medicine in Paris, referring in terms of warm appreciation to Seguin's studies and successes. "While we are speaking" (says he) "of the men who have occupied themselves with idiots, we should not fail to mention here, with some distinction, M. Seguin, whom M. Ferrus and myself were so very fortunate as to recommend to the esteem and favour of the Council-General of Hospitals, and who was therefore appointed director of our idiot-asylum at Bicêtre. Endowed with an energetic character, full of capacity, a good observer, and with his whole time at command, he has all the qualifications for this special work, and, at the same time, rendering a service to science and humanity. Already in 1838, and since, he has published the results of his efforts on behalf of a certain number of pupils, whose condition he has favourably modified. His studies, during a later period, are entirely unique, and I trust that their publication by him will not be long delayed; and I do not doubt that the time is not far distant when he will be entitled by his psychological contributions to take a distinguished rank among his cotemporaries." Voisin's prognostications were fully realised by the publication in 1846 of Seguin's *magnum opus*, entitled "*Traitement Moral, Hygiène et Éducation des Idiots.*"

Defining idiocy as "an infirmity of the nervous system, which has for its effect the abstraction of the whole or part of the organs and the faculties of the child from the normal action of the will," he proceeds to divide all cases into two principal classes, those of profound and those of superficial idiocy. The basis of the treatment which he proposes is in the main identical with that which in later works he described under the designation of *physiological education*. Starting with the axiom that "The education of the senses must precede the education of the mind," he argues that the true

physiological method of tuition for persons whose nervous system is imperfectly developed is (I) "*to exercise the (imperfect) organs so as to develope their functions,*" and (II), "*to train the functions so as to develope the (imperfect) organs.*" Ingenious devices are described whereby the organs of the senses may be methodically exercised, and cases are given in minute detail in which such exercises have been adapted to special incapacities.

A treatise containing so much that was novel and of deep interest, not only with regard to the training of the idiot, but in its relation to the principles of education generally, could not fail to elicit attention, and Dr. Brockett tells us "it was crowned by the Academy," whilst Dr. Wilbur mentions that the author received from Pope Pius IX. an autograph letter of thanks for the service he had rendered to mankind. But the most practical result was the attention it attracted to Seguin's work at the Bicêtre, which was speedily visited by psychologists of many nations, and amongst them by Mr. Cleaton and Dr. Conolly. The former published in "Chambers' Journal" for 1847 an appreciative notice of Seguin's school, whilst the latter testified in the "British and Foreign Medico-Chirurgical Review," his high estimation of the skill and science of the master. It is not too much to say that the establishment in England of the asylums for idiots at Earlswood and Colchester, and even at a later date of the Royal Albert Asylum at Lancaster, was due to a large extent to the influence of the principles and practice set forth by Seguin at the Bicêtre. The fame of his work moreover spread to the United States, and an approving report, by Messrs. Horace Mann and Sumner of what they had seen in Paris, gave strength to the movement, which ultimately led to the institution of state asylums for idiots in Massachusetts and New York.

It is curious that the torch from which so much illumination was kindled should have at length been allowed to go out. But with the revolution of 1848, Seguin's connexion with the Bicêtre, and with France, came to an end. An earnest Republican, and distrustful of the designs of the Prince-President, he resolved to become a citizen of the United States, and for a time he engaged in general practice in Ohio. Soon, however, he became acquainted with the recently established Institutions for Idiots in his adopted country; and for a period he presided over the Pennsylvanian

Training School. But his want of familiarity with English, and his distaste for mere administrative detail, rendered this post irksome to him; and for the last 30 years of his life he practised as a physician in New York. His love for his early work never left him, and in 1866 he published, with the assistance of his son, Dr. E. C. Seguin, a book in English, on "Idiocy, and its Treatment by the Physiological Method." This, notwithstanding its occasional Gallicisms, has a charm of style which renders it very lively reading.

In the last decade of his life he was a frequent visitor to European Medical Congresses, where he figured more especially as the advocate of a uniform metric system, and of "mathematical" thermometry in medicine. He lost, however, no opportunity of aiding in the progress of the scientific treatment of idiocy; and in his official "Report on Education," *apropos* of the Vienna Exhibition of 1873, he records his visits to many of the English and Continental institutions. His latest writings were monographs on the "Training of an Idiotic Hand," and the "Training of an Idiotic Eye," in which he puts forward observations to show that cerebral and cranial development followed the training of those organs. It is interesting to learn that the last enterprise of his life was the establishment in the City of New York of a "Physiological School for Weak-minded and Weak-bodied Children." From the prospectus of this, dated October, 1880, we quote the closing paragraph—"The application of physiology to education was the work of my youth, and has been the main object of my thoughts for forty-two years. I give it my last years, with the assistance of my wife, meaning to leave her the young and clear-headed exponent of the method I have scattered, but not exhausted, in many books, pamphlets, and living lessons." It is melancholy to think that within a few weeks after he penned these words he was snatched by the hand of death from the fresh sphere of usefulness he had contemplated. His devotion to his work was of the most unselfish kind, and, to borrow the words of Dr. Brockett, the most appropriate and truthful inscription on his monument would be, "He loved others better than himself."

G. E. S.

PART III.—PSYCHOLOGICAL RETROSPECT.

German Retrospect.

By WILLIAM W. IRELAND, M.D., Stirling.

The Functions of the Cortex Cerebri.

Dr. Goltz, at the meeting of neurologists and alienist physicians in Baden, held in June, 1880 ("Archiv," xi. Band, 1 Heft), described a new series of experiments in order to ascertain the functions of the cortex cerebri. By the help of an instrument specially made for the purpose, he removed portions of the pia mater of the brain in animals. Even after removing a large portion of the cortex cerebri he never saw enduring paralysis of any muscle, nor enduring anæsthesia of one side of the body. The animals became demented, and showed permanent dulness of all the senses. What is especially remarkable, Goltz, by destroying the white substance under the so-called motor zone, could produce convulsions in the opposite side; but as long as the instrument only touched the grey matter there were no convulsions. Mechanical irritation of the parts was followed by the same results. Dr. Goltz therefore believes that, in electrical irritation of the brain as practised by Fritsch and Hitzig, we have not to do with irritation of the grey matter, but of the underlying white substance.

The Weight of the Hungarian Brain.

There have been some contradictory statements about the size of the brain of the Magyar race. Davis asserted that the Hungarians had the lightest brains of all the nations in Europe, standing in this respect almost as low as the Gypsies. Engel asserted that the Germans and Italians in the Austrian Empire had, on the whole, the heaviest brains; while Weissbach, on the contrary, held that the mean of the Hungarian brain was greater than that of the Germans, Poles, Slavonians and Italians in the Empire. Laufenauer examined 656 brains, all from insane patients. Cases where atrophy and sclerosis existed were excluded. It may be remembered that Meynert found that, by weighing 157 brains of insane people between 20 and 69 years of age, there was a mean weight of 10 grammes greater than that of 174 soldiers about the same age.

Out of 414 male brains he found a mean weight of 1,339 grammes, and of 242 brains of females a mean weight of 1,218 grammes. Amongst these there were of pure Magyar race 82 males, giving a mean weight of 1,378, and 41 women, with a mean weight of 1,247 grammes. There were some other brains from persons who

spoke the Hungarian language, but were of alien origin, which were excluded.

From Laufenauer's inquiries it appears that the brain of Hungarian men is 21 grammes heavier than the German and Slavonic races of the Empire, and that the brains of Hungarian women are heavier than those of German women by 37 grammes, and by 43 grammes than the Slavonian women. The Hungarian brain is therefore heavier than that of other people of the Austro-Hungarian monarchy, except that of the Bohemians, who hold the first rank with a weight of 1,368 grammes. The lowest brain weight is that of the Jews, the men having a mean of 1,291 grammes and the women of 1,138.

Dr. Wirsch found that the brain attained its greatest weight with men in the third, with women in the fourth decennial period. From that time it gradually falls off. In melancholia, mania, and insanity with delusions, there is the smallest diminution, whereas all forms of insanity leading to dementia show a great loss of weight.

A New Explanation of Microcephaly.

Dr. G. Joseph ("Zeitschrift," xxxvii. Band, 4 Heft) has a new hypothesis on the cause of microcephaly, that it is owing to abnormal narrowness of the carotids. This condition has actually been found in the dissection of a microcephalic brain by Jensen, in which the carotid canals were diminished in size by about one-fourth of the normal calibre of the apertures.

The Brain of Criminals.

Professor Benedikt (as quoted in the "Zeitschrift," xxxvii. Band, 4 Heft) has been continuing his studies on the brain of criminals. The difference is summed up in the following sweeping sentence. In the normal brain the typical convolutions are separated from one another; in the brain of criminals they are fused. There are, besides other anomalies of development, shortening or lengthening of the posterior half of the skull, peaked form of the head, early synostosis of the sutures, numerous wormian bones and nondescript irregularities of length and breadth of the cranium. According to Benedikt, we have in the criminal class a zoological variety of the human species—in fact, a retrogression of type.

Loss of Weight after Epileptic Fits.

Dr. Paul Kowalewski ("Archiv," xi. Band, 2 Heft), in a series of inquiries made in the asylum of Charkoff, found that epileptics lose weight after every fit. The amount depends upon the duration of the disease and the intensity of the attack. In chronic cases the amount lost is small—from one to two pounds. In recent cases it amounts to as much as from one to three pounds. In the status epilepticus, where from five to twenty fits occur in the twenty-four

hours, the loss of weight is as much as fifteen pounds. If the status is prolonged a day longer, the loss is less than the first day, by from one to five pounds in the twenty-four hours. In ordinary epileptic attacks the loss is the most considerable, amounting to as much as twelve pounds. In epileptic vertigo the loss of weight is not so great, generally from two to five pounds.

In epilepsy combined with mental symptoms the so-called *epilepsia psychica*, the loss is always very great, sometimes as much as one-fourth of the whole bodily weight. After the cessation of the fits, the loss of weight is rapidly repaired.

The patients were regularly weighed every morning between 10 and 11, and often immediately after a fit.

The author reserves for farther consideration the question from what process of decomposition in the organism does this loss of weight arise. He is making experiments upon the urine, and will be much gratified should other observers institute investigation into the excretions from the lungs and skin in epilepsy.

Is Albuminuria present in Epilepsy?

Dr. Kleudgen has in the asylum at Bunzlau ("Archiv.," xi. Band, 2 Heft) examined the question whether albumen is present in the urine after epileptic attacks, as represented by Huppert. In common with Richter, Rabenau, Karrer and others, Dr. Kleudgen comes to the conclusion that this is not the case. He finds that, whenever the urine reaches a certain degree of condensation, traces of albumen are to be found in it. The urine of epileptics showed neither this degree of concentration, nor does it show traces of albumen. In those few cases where albumen was detected it was ascribed to admixture of the seminal fluid.

The Temperature in General Paralysis.

Dr. Wirsch, in an inaugural dissertation (quoted in the "Central Blatt für Nervenheilkunde," 1 März, 1881), has made a great many observations on the temperature of the body in general paralysis. He found that the temperature is higher during the stage of excitement with grandiose ideas, and that it falls when the mood becomes calmer. It cannot, however, be held that the bodily heat is raised in all cases of mental excitement. Sometimes, in maniacal attacks, the temperature is normal, or even lower than usual.

Dr. Wirsch has found that a limb, after it becomes paralysed, is at first colder than the sound one, but that subsequently its temperature rises higher than the others.

In the last stage of general paralysis the scale either rises very high or falls very low. He has observed before death the temperature to mount as high as from 40° to 43°, or to fall from 30° to 23°. In one case, where the temperature had fallen to 31°, Dr. Wirsch succeeded,

through exciting and stimulating treatment, in renewing the normal temperature, thus inducing considerable improvement. He has observed, by taking thermometrical observations at the site of the great fontanelle, that there are variations of from 33° to 36.5° .

Mental Disorders in Ergotism.

Dr. Fritz Siemens ("Archiv.," xi. Band, 1 und 2 Heft) describes the nervous derangements caused by the use of spurred rye in the food of the inhabitants of the circle of Frankenberg in Hesse. A similar epidemic had occurred in the year 1855-56 after the rye harvest. It prevailed in some dozen villages, having in all about 2,500 inhabitants, out of whom one-fifth were affected. Many deaths took place. The disease was especially frequent with children, but infants at the breast escaped. The proportion of ergot in the rye was said to be about nine per cent. The epidemic described by Dr. Siemens occurred in 1879-1880. It is somewhat disappointing that Dr. Siemens, in his interesting papers, confines himself so much to the disorders of the nervous system, and to those cases which took the spasmodic form of ergotism, as a correct picture of all the morbid symptoms is needful to the physician. Dr. Siemens appears to have seen twenty-one cases, of whom six men and five women were received into the asylum at Marburg. The cause of the disorder was undoubtedly the use of the rye bread containing ergot; but the people themselves who used this powerful drug mixed up with their food, observing that only some who eat the rye bread were affected, would not admit the explanations of the physicians, inquiring, "If the bread is injurious, why are the rest of us not also ill? They have caught cold, and nothing else." So even those who came out of the hospital cured returned to eat the same unwholesome bread. The author thinks it curious why all were not affected who eat of the bread, and this question is deserving of attention. Though most causes of disease are not universal in their action, all the grains of rye on the same head are not spurred; some have escaped the disease, which has altered the composition and form of the rest.

It was noticed in several cases that persons with a marked tendency to insanity were not affected by eating the unwholesome bread, while those of a good constitution suffered. The symptoms in some respects resembled those resulting from the abuse of a narcotic drug, such as Indian hemp or belladonna, upon the nervous system.

The complexion was sallow; there was a feeling of formication or burning of the hands and feet, with giddiness, fulness in the head, sometimes headache, and flickering before the eyes. This was followed by a period of excitement, gradually surmounting the bounds of self-restraint; jerkings of particular muscles were felt at an early stage, passing in the course of the disease into severe epileptic fits. These convulsions were present in all the cases: in all the female

patients the menses were suppressed. The pulse was generally high and the pupils dilated. The sensibility was diminished. Though the reflex action from tickling of the skin was not affected, the patella tendon reflex was wanting, and did not reappear till convalescence was well established. There was also motor ataxia. The appetite was generally good. Gangrene of a finger is mentioned in one instance.

In many of the cases there were hallucinations, especially of sight; visions of dazzling brightness mixed up with the delusions of a wandering, incoherent fancy. One of the patients, after her recovery, thus described some of her feelings:—

"I cannot tell you the brightness that I saw, and I heard all kinds of voices. Once it came into my mind how the thief on the cross had become holy. It is inconceivable how many things came before me. Once it appeared to me as if the world was to be destroyed by fire, and I could save it. I thought that all the brightness which came into my fancy went into a little chest, and that there was near Frankenberg a water where I could make everything right by plunging it in." At another time she said: "When I am lying in bed, and even when I am up, everything seems bright around me, and I see everything full of flowers, and I see spirits, and everything that I have learned or heard of appeared before my sight, and it seemed to me as if the brightness and the beautiful apparitions came out of my leg."

She had injured her left leg by throwing herself out of a window.

At a later stage the patients passed into a state of deep stupor, ceasing to speak, and were roused with difficulty by sounds cried into their ears. They recovered quickly when they no longer used the noxious rye bread.

Two of the patients received into the asylum at Marburg died, one—a vigorous man of 32—suddenly, the other apparently from the exhaustion of the epileptic fits. In neither case were the morbid lesions found of a marked or distinctive character. The only thing abnormal noted in the examination of the body of the man who died so suddenly was that the vessels of the pia mater were very full; in the second case the examination was carefully made. The grey matter of the brain was noted to be somewhat tough; the white substance presented an unusually strong contrast to the cortex; it was a little congested. In the cerebral ganglia there were patches of a pale yellow colour, especially in the lenticular ganglia and optic thalamus.

Dr. Siemens remarks that ergot for medicinal use costs a hundred times as much as the same quantity of rye, and that the people might thus have made money by separating the poison from their food instead of swallowing it.

Hallucinations.

Victor Kandinsky, a physician in Moscow, gives ("Archiv" xi. Band, 2 Heft), the result of his studies on his own mental derange-

ment, for he had the misfortune to suffer from insanity during two years. His paper is written in a thoroughly scientific spirit, with great power and precision of expression. I have thought the interest of the subject sufficient to justify my giving a free translation of many passages, retaining the expressions which are of a materialistic character, as far as the differences of the language will allow. He begins by running over some of the most modern theories on the nature and origin of hallucinations, rejecting them all save the theory of Meynert. This distinguished physician holds that hallucinations are the result of a stimulus supplied to the cortex of the anterior lobe of the brain. He has demonstrated the anatomical connection of the corpora quadrigemina, the centres of visual perception, with the cortex of the brain. Through this path travel visual impressions with the sensory impressions of the adaptations of the muscles of the eye to the brain where they are associated with the representations of space, but the connection with the factors of the representation of space already begins in the corpora quadrigemina. The gray matter of the anterior part of the brain has for its function the reproduction and association of ideas and the regulation of the subjective excitement or other parts of the brain, as also the excitation of the infra-cortical centres of the organs of sense. If an excitation representing no outward sensation comes from one of the infra-cortical centres of sense to the cortex cerebri, the centre of consciousness, there are no means of distinguishing this from a real outward impression, and thus a hallucination is produced. In the normal state the activity of the cortex regulates the merely subjective excitations of the organs of sense; in ordinary language the intellect distinguishes and interprets our sensations, and by an exertion of the will we pay attention to some of these and dismiss others. The suspension of this mental activity makes hallucinations possible, so that hallucinations are no proof of excitement of the cortex, but rather a proof of the abatement of its activity. Though hyperæsthesia of the sensory nerves may favour the production of hallucination, it neither can produce them nor is it necessary for their production. Dr. Kandinsky holds that his observations confirm Meynert's theory, and decidedly contradict all other explanations. He himself was affected with hallucinations of all the senses with the exception of that of taste. Hallucinations of smell were comparatively rare, and it was difficult to distinguish them from real impressions, because the sense of smell was very active. "In many cases, too," he naïvely remarks, "it was not easy to distinguish hallucinations of hearing from real auditory perceptions, for in asylums the patient hears from every side so many sounds, voices, and speeches of all kinds that it is sometimes difficult to distinguish the real from the fanciful." Of all his hallucinations, he tells us those of sight and feeling were the most frequent and the most lively and diversified. There were also numerous impressions of touch and pressure, and very remarkable

hallucinations about the equilibrium of the body, and its position in space. Objects appeared to turn round the axis of the body or round the visual line. There was a movement either in one or in several fixed directions. The ground, he writes, seemed to fly under my feet ; the walls to fly or to be pushed asunder. Sometimes one part of the wall seemed, to the right eye, to go upwards, while to the left eye a part seemed to go downwards, producing a very painful feeling of sundering of the brain. There was a feeling of rolling down a slope or a turning up of the bed, or being turned round or thrown into the air, and there was a very lively feeling of flying in space. Dr. Kandinsky considers that all hallucinations which give the impression of a continuous movement of objects in one direction where the feeling of equilibrium is destroyed, or the position of the body in space is altered, are the results of impaired nutrition in the cerebellum. In the first month of his illness there was no hallucination, but an irregular mental activity, an intellectual delirium, a race of delusions and involuntary thoughts. At the same time he was in a state of deep melancholy, brooding over his altered circumstances, and the probable sequence of his unfortunate illness. The hallucinations, he observes, began after the brain was exhausted by the rapidity of his thoughts, and an anæmic condition was produced through his voluntary abstinence from food. Not more than one-tenth of the hallucinations he experienced had any relation to the delusion and involuntary ideas which occupied his mind. The hallucinations were not in general incongruous with his personal education and culture ; but there were others which especially appearing at a later stage of his malady harmonised so little with his experience of himself that he sought to account for them on the whimsical theory that they were hallucinations communicated by some process like electrical induction from the brain of the patients around him.

Dr. Kandinsky found that the condition most favourable to the appearance of hallucinations was the suspension of activity, both of the mind and body. The only influence which the will has over the hallucinations is that it may place the patient in a favourable position for receiving them. He never succeeded either in intentionally calling before him hallucinations or changing a recollection or a product of the fancy into a hallucination, or even in recalling one which had recently appeared to him. Hence he rejects the view of Lelut that hallucinations are simply thoughts projected outwards. There is no sharp distinction between the period of waking and that of sleep. On the one hand the images in dreams are so vivid that the patient may be said to wake during sleep. On the other hand the hallucinations are so wonderful and diversified that the patient may be said to have waking dreams. "During the period of my illness," he says, "my dreams were not less lively than what I experienced in real life, and when the representations and dreams came back to my remembrance, it was only by a slow

and difficult process of questioning myself that I could make out whether I had experienced those things in reality or had only dreamt of them. Some of my hallucinations were in comparison with others colourless and indistinct ; others were vivid and diversified with the bright colours of the real objects of ordinary vision. For a week I saw on the wall, which was hung with smooth tapestry of one colour, a row of pictures with wonderful golden frames or borders, fresco pictures, landscapes, sea pieces, sometimes portraits with colours as bright as those of Italian artists. Another time when I made myself ready to sleep, I saw suddenly before me a statue of middle size of white marble in the attitude of a stooping Venus. After some seconds the head of the statue fell off, leaving the stump of the neck with the red muscles. The head, when it fell, broke in the middle, exposing the brain. The contrast between the white marble and the red blood was especially striking.

"There were hallucinations with the eyes open as well as with the eyes closed. In the first of these cases they were seen on the ground, or the carpet, or on the wall, or they appeared in space covering the objects lying behind them. Sometimes the whole surrounding scene disappeared to be replaced for a few seconds by an entirely new one. For example, from being in a room I suddenly saw myself transferred to an arm of the sea, and on the opposite shore there was a chain of mountains with all the semblance of reality. Even when my eyes were shut I saw images of living beings, microscopical preparations and ornamental figures upon the dull background of the field of vision. In time I became accustomed to the hallucinations of sight. They ceased to excite or overwhelm me, and at last simply amused me."

There is always a clear distinction between hallucinations and images furnished by the memory, or moulded by the fancy. What is characteristic of hallucinations is not their vivid character, for some are faint, but their felt objectivity, while the images of the memory and imagination are associated with a feeling of activity of the brain and thus always retain a subjective character. Some artists and poets are gifted with a very powerful and lively imagination, but have no hallucinations, while a man may have a very weak power of imagination and yet be visited by hallucinations. In answer to the question whether his hallucinations were of a peripheral or central origin, Dr. Kandinsky writes, "My organs of sense were in a state of hyperæsthesia, but this hyperæsthesia showed itself only in the later period of delirium of the senses. It was expressed through noise in the ears, simple and co-ordinated sounds, through sparks in the eyes, universal lighting up of the field of vision, or by the appearance of points of light moving in circles and sparks. These simple hallucinations had no resemblance to the others of central origin which were both complicated in detail and harmonious as a whole. Moreover the peripheral hallucinations lasted after the eyes were shut ; those of

central origin either disappeared or were replaced by others. The images derived from hallucinations of peripheral origin followed the movements of the eyes ; those of central origin generally disappeared on turning the eyes away from them, so that in a new direction nothing was seen or a quite new image appeared. On casting the eyes quickly back I could sometimes see the same image as before. "Without energetic exertion of the will," he observes, "my hallucinations would probably have become permanent and my mental powers totally extinguished ; but after I had become accustomed to the hallucinations I began steadily to read. At first it was difficult, for the hallucinations of hearing disturbed me, and those of sight stood between the book and the eyes, but in time I succeeded in continuing my reading without paying any heed to the hallucinations. With the beginning of a regular mental activity the hallucinations became paler and less frequent, and disappeared entirely some months later after I had begun to work."

It appears as if Dr. Kandinsky had wrought out his own cure, and his experience furnishes valuable indications how similar cases should be treated. The only trace of his old hallucinations is the appearance of sparks, stars, and other figures of light before he composes himself to sleep after fatiguing mental work.

PART IV.—NOTES AND NEWS.

REPORT OF THE THIRTY-SIXTH ANNUAL GENERAL MEETING OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

The Annual Meeting of the Medico-Psychological Association was held on Tuesday, 2nd August, at University College, London, Dr. Hack Tuke presiding. The following members and visitors were present :—Drs. Ringrose Atkins, Bacon, Bayley, Boyd, Brushfield, Blandford, Bower, J. A. Campbell, Crochley Clapham, Clouston, C. MacIver Campbell, Courtenay, T. V. de Denne, P. M. Deas, Eager, Bonville Fox, Gill, Greene, Glendinning, Gilland, Huggard, Hingston, Ireland, Jepson, Maudsley, Munro, Mickle, Mickle, W. Macleod, Major, T. W. McDowall, J. G. McDowall, Ley Manley, Manning, Mould, Needham, Hayes Newington, T. Newington, Orange, Paul, Patton, Philipps, Rayner, Rogers, Rutherford, A. Robertson, Savage, Sibbald, Spence, W. von Speyr, Swain, Stocker, Sutherland, Sankey, Claye Shaw, C. M. Tuke, Urquhart, W. Wood, W. E. R. Wood, Oscar T. Woods, Woollett, Whitcombe, T. Outtersson Wood, Wallis, H. F. Winslow, Yellowlees, &c. At the afternoon meeting there were also present the Earl of Shaftesbury, Mr Bagot, Dr. Rhys Williams, Dr. Bucknill, Dr. C. Browne, and Professor Gairdner. Delegates, (see next page).

Mr G. W. MOULD, the retiring President, thanked the officers and members of the Association for the kind consideration which had been shown towards him during his year of office. He said that he was very grateful to receive the post, and at the same time he was very thankful that his time was over. He had had the good fortune to follow an able and distinguished man, and he was pleased that it had now fallen to his lot to hand the office over to another distinguished man, who he was quite certain would add lustre to the position.

Dr. HACK TUKE then took the chair.

Dr. TUKE said that in taking the chair and assuming the office of President, he felt it to be his duty to thank them most sincerely for their kindness in placing him in that position. He would express his hope—indeed he ventured to think—that they would that day have a very pleasant and successful meeting. Perhaps some apology was due to the members of the Association from the Council for the meeting not being held in the College of Physicians now occupied by the International Medical Congress, where the seats were more comfortable than those in the room they then occupied, which were more suited for students than for the members present. Still it was some consolation to know that they were meeting on what might be regarded, medically and surgically, as classic ground, for it was at this College and Hospital that Liston and Elliotson taught and laboured, as also Sharpey and Edward Parkes, not to mention the names of many other noted men. To the Council of University College their best thanks were due for allowing them to meet here.

The PRESIDENT then submitted letters which he had received from the following gentlemen expressing regret at being unable to attend the meeting, viz., Drs. Lockhart Robertson, Charcot, Dumesnil, Blanche, Lunier, Magnan, Voisin, and Luys. Drs. Falret and Brosius had fully intended to be present.

Delegates were appointed to the meeting by the French Medico-Psychological Society, namely MM. Laségue, Motet, and Foville, and were present.

America.—Dr. John B. Chaplin, of the Willard Asylum, N. Y. State, was appointed a delegate by the American Association of Medical Superintendents of American Institutions for the Insane. The second delegate was Dr. Macdonald, of New York. Dr. Whitmer, of the Washington Asylum, was present, Dr. Hughes, of St. Louis, being unable to attend.

Austria.—Drs. Benedikt and Franz Müller.

Germany.—Dr. Brosius, of Bendorf-Sayn, near Coblenz, was prevented at the last moment from attending.

Italy.—Dr. Tamburini, Reggio-Emilia.

Dr. SAVAGE said that before proceeding further with the business of the meeting there was one thing to be done which was most grateful and gratifying, namely, to propose a vote of thanks to their late President. His glory had, to a certain extent, departed, but he (Dr. Savage) felt quite sure that the good which their late President had done—the rays which had sprung from his rising—would not be lost when he set, but that there would be a stored-up sunlight that would make the past memorable. There would that day be so much talking and speech-making that he did not intend to hold forth long upon the merits of their late President. They all knew him as an energetic and painstaking man, and when they called to mind how well he had looked after the interests of the Association during the past year, it would be quite unnecessary for him to say more than to propose a hearty vote of thanks to the President who had just resigned.

The vote of thanks having been seconded by Dr. RAYNER, was put to the meeting, and carried with much applause.

Mr. MOULD said that he had great and sincere pleasure in receiving this vote. His year of office had been very pleasurable. He had been so ably guided and carefully coached by the officers of the Association that nothing had occurred to mar the pleasure. He was glad to be able to say that there had been no difference of opinion or disagreement of any kind.

The PRESIDENT then called upon Dr. Rayner, the General Secretary, who presented the minutes of the last Annual Meeting, which were printed in No. CXV. of this Journal (October, 1880).

The Minutes having been taken as read were confirmed.

The next business upon the agenda being the resignation by Dr. Clouston of his post as one of the editors of the "Journal of Mental Science," that gentleman rose and said that in resigning the office to which he had been appointed nine years ago, he did so with very mixed feelings. It was always

very unpleasant to give up any duty which one had performed for any length of time; yet, on the other hand, he did so with great pleasure, inasmuch that he felt that he left the work in the hands of those who were very much better qualified to perform it than he was conscious of being. It would be unbecoming for him to say much in reference to the two editors of the Journal who would continue to go on with the work after he had given it up, and who had, as a matter of fact, been associated with him during the past few years. Probably no other association was ever so fortunate in having two such men as Dr. Hack Tuke and Dr. Savage to act as editors. He thanked the Association most heartily for having appointed him to the office he had held, and for the support which he had received in the discharge of his duties. The office of editor of that Journal was, beyond any doubt, one of very high importance considered in relation to the interests of their Association and to that department of medicine with which they were associated. The Journal was of great practical daily importance to them all in their ordinary work as physicians and superintendents of asylums. He felt conscious that during the time that he had held the office of editor of the Journal, the standard, as far as he was concerned, had been very far short of what it might be. In fact the post of editor required most numerous qualifications. The editor ought to have the whole literature of the subject at his finger ends. As regards linguistic attainments he should be a very polyglot; he should have an omnivorous appetite for digesting the large and varied mass of publications, and it was further requisite that he should be a man of enthusiasm and of original power. Now all these requisites were possessed by Dr. Hack Tuke and Dr. Savage in a high degree. If there was one thing more than another connected with the editorship of the Journal which he did not regret, it was this—that during the time he had been an editor he had been the means of establishing those Notes of Cases which would no doubt be continued in a much more vigorous way than he had been able to carry them on. He would have wished to see some man or men on the editorial staff connected with the provinces. It was very highly important that the Journal should not merely become a London journal. It never had been so, and he thought it ought never to become so. It originated in the provinces, and had been well supported there, and he trusted that, if the time should come when they might have to re-arrange the staff of the Journal, the provinces would not be left out of sight. He would like to see such men as Dr. McDowall and Dr. Ireland and others appointed to assist, and he thought it likely that the difficulties which frequently attended the existence of a large staff of editors or coadjutors might in the course of time be overcome, so that they might have the advantage of the able assistance of men who had done such work as those he had named.

Dr. HAYES NEWINGTON said that he had great pleasure in proposing a vote of thanks to Dr. Clouston for the able manner in which he had discharged his duties as an editor of the Journal. He could speak from personal observation of the hard work which Dr. Clouston had done, and it required personal observation to appreciate the amount of work that was thrown upon the editors of the Journal. The Journal bore evidence upon its face of good work. Dr. Clouston had been preceded by good men, and the work would continue in the hands of good men, and Dr. Clouston would not, he felt sure, lose in comparison either with his predecessors or successors.

Dr. MAJOR, in seconding the vote of thanks, said that they all of them knew the time and trouble which had been bestowed and the ability which had been shown in the editing of the Journal. A simple vote of thanks was a poor recognition of such work, still it was accorded with much heartiness, and as such would no doubt be accepted by the recipient.

The PRESIDENT observed that the Editors had always worked most harmoniously, and they hoped that the good anticipations which had been expressed as to the future conduct of the Journal would be realized.

The meeting then resolved unanimously, "That a vote of thanks be accorded to Dr. Clouston for the most able manner in which he has discharged the

duties of Editor of the Journal, together with an expression of regret at his resignation."

The next business was the appointment of Officers and Council for the ensuing year.

The PRESIDENT reminded the members of the Association that the object of the new rules for election introduced last year was to prevent any discussion of individual merits at the general meeting. Therefore, if any member had any name to propose in lieu of those nominated by the Council, such member would of course exercise his full power by writing the name of any member he might wish to substitute in the balloting paper about to be sent round. The President then nominated the three following gentlemen as scrutineers, viz., Drs. Blandford, Yellowlees and Atkins.

The lists having been collected, the scrutineers retired to examine the same, and subsequently reported that the nominations of the Council had in every case been supported, whereupon the following gentlemen were declared by the President to be duly elected as

OFFICERS AND MEMBERS OF THE COUNCIL FOR THE YEAR 1881-82.

PRESIDENT-ELECT	...	...	PROFESSOR W. T. GAIRDNER, M.D.
TREASURER	...	...	JOHN H. PAUL, M.D.
EDITORS OF JOURNAL	...	{	D. HACK TUKE, M.D., G. H. SAVAGE, M.D.
AUDITORS	...	{	WILLIAM WOOD, M.D., E. S. WILLETT, M.D.
HONORARY SECRETARIES		{	E. M. COURTENEY, M.B. For Ireland. J. RUTHERFORD, M.D. For Scotland. H. RAYNER, M.D. General Secretary.

NEW MEMBERS OF COUNCIL.

T. S. CLOUSTON, M.D.	|	W. J. MICKLE, M.D.
J. A. LUSH, M.D.	|	HERBERT MAJOR, M.D.

Dr. RAYNER, the General Secretary, stated that as it was tacitly understood that Glasgow was to be the place of their next annual meeting, he would now formally move that it should be held there.

Dr. YELLOWLEES, in seconding the motion, said that the Scotch members would do all they possibly could to ensure a successful meeting at Glasgow.

The motion was put and carried.

Mr. MOULD, in proposing a vote of thanks to the Editors of the Journal, said that he wished it had fallen to the lot of some one who could express more ably than himself the Association's sense of the work which had been done by the Editors. He was only too sorry that Dr. Clouston had seen some reason to relinquish his share of the editorship of the Journal. He (Mr. Mould) would have thought that after the remarks which Dr. Clouston had made respecting the necessity of keeping a man from the provinces upon the editorial staff, he would have seen fit to revoke his decision. He begged to move a hearty vote of thanks to the Editors for their very laborious, able, and persistent efforts in the management of the Journal during the past year.

The motion was seconded by Dr. ATKINS, who said that he thought that the "Journal of Mental Science" bore upon its pages the impress of the practical ability with which it was conducted, and would bear a favourable comparison with any other journal of a similar character. He thought they might be very proud of the way in which their Journal was carried on.

The motion having been put to the vote by Mr. MOULD, was carried unanimously.

Dr. CLOUSTON, on behalf of himself and his co-editors, Dr. Hack Tuke and Dr. Savage, thanked the Association most heartily for the vote of thanks which had been passed. He had no doubt that the Editors had not edited the Journal

as well as might be, but they had done their very best, and no one could do more than that. The office of editor was one which it was a very great pleasure to undertake, and he had no doubt that it was one which would be readily sought after. There was one thing which he had not made plain in his former remarks, and that was his opinion that the editorship should not be continued by any one man *ad infinitum*, or as long as he lived. In fact, that was one of his objects in resigning. He thought that the post of editor should pass current among those members of the Association who were qualified and capable to undertake it. This would be good for the Journal, for the Association, and for the members themselves.

The next business being the presentation of the Treasurer's accounts for the past year, Dr. PAUL submitted the balance-sheet, which will be found on page 439, the same having been duly examined and certified as correct by the Auditors.

Dr. YELLOWLEES, in proposing the adoption of the accounts, begged to move that the best thanks of the meeting should be tendered to Dr. Paul for the admirable way in which he had kept them, and for the handsome balance of £255 which he was able to show at the end of the year. By no other person than Dr. Paul could the duties of treasurer be discharged in so genial a manner. It did them all good to meet his genial, cheerful countenance, and although he was one of the fathers of the Association, he was, in his energy and devotion to business, younger than any of them.

Dr. BACON having seconded the motion,

The PRESIDENT observed that every word which had been spoken by Dr. Yellowlees in regard to Dr. Paul he could personally endorse. Dr. Yellowlees had not spoken the language of eulogy, but of simple truth.

The vote of thanks was carried with applause, and was duly responded to by Dr. PAUL, who said that for the last twenty years it had always been a source of great pleasure for him to meet the Association and to do all he could to advance its interests.

Mr. BAYLEY proposed a vote of thanks to the Secretaries, observing that the Association was under great obligations to those gentlemen for the way in which they performed their duties.

This having been seconded by Dr. NEEDHAM, and carried unanimously, was responded to by

Dr. RAYNER, who, on behalf of his brother Secretaries and himself, expressed the pleasure which it afforded them to carry on their work.

The election of ordinary members was then proceeded with. The balloting box having been sent round, and there being no dissentient vote, the list was taken *en masse*, and the following gentlemen were declared to have been duly elected Ordinary Members, viz. :—

Charles Mercier, M.B., F.R.C.S., late Senior Assistant Medical Officer, Leavesden Asylum.

William Johnson Patten, B.A., M.B., L.R.C.S., Assistant Medical Officer, Three Counties Asylum, Stotfold Baldock, Herts.

T. P. O'Meara, M.D., District Asylum, Carlow, Ireland.

J. Droyer, M.D., District Asylum, Castlebar, Ireland.

George Snell, M.R.C.S., Assistant Medical Officer, Berbice, British Guiana.

Harry A. Benham, M.B.C.M., Assistant Medical Officer, Royal Lunatic Asylum, Dundee.

Charles Moulsworth Tuke, M.R.C.S., The Manor House, Chiswick.

Samuel A. R. Strahan, M.D., Assistant Medical Officer, East Riding Asylum.

John H. Parker Wilson, Surgeon H.M. Convict Prison, Brixton.

E. G. Geoghegan, M.D., Assistant Medical Officer, Borough Asylum, Southampton.

In regard to the appointment of Honorary Members, the PRESIDENT stated that under circumstances, which were about to be explained, the Council had upon the present occasion departed from the ordinary rule which required that

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.



The Treasurer's Annual Balance Sheet, 1880-81.

RECEIPTS.		EXPENDITURE.	
	£ s. d.		£ s. d.
To Balance—Cash in Hand	... ..	By Annual and Quarterly Meetings	... ..
To Subscriptions received	... ..	By Expenses of Reporting at various Meetings	... ..
By Secretary for Ireland	... ..	By Editorial Expenses	... ..
By Secretary for Scotland	... ..	Printing, publishing, engraving, advertising	... ..
By Sale of Journal, Messrs. Churchill	... ..	expenses, and postage of Journal	... ..
By Interest on £205 7s. 10d., 3 per cents.	... ..	By Engraving Seal for the Association, affixing seal	... ..
		to Diplomas, and registering them to their	... ..
		destination by post...	... ..
		By Sundry Expenses, Advertisements, &c.	... ..
		By Treasurer	... ..
		By Secretary for Ireland	... ..
		By Secretary for Scotland	... ..
		By General Secretary	... ..
		By Balance in Treasurer's hands	... ..
	<u>£731 0 10</u>		<u>£731 0 10</u>

Andited and found correct,
W. ORANGE,

J. H. PAUL,
TREASURER.

a month's notice should be given of the names of honorary members, and that the number to be appointed should not exceed three. They had, however, in the circular calling the Annual Meeting given a month's notice of their intention to depart from the rule.

Dr. MACDOWALL said that the matter would not require much explanation. The International Medical Congress was a very unusual occurrence, and it was considered fitting that on this occasion (and for this occasion alone) the rules of the Association, so far as they related to the appointment of honorary members, should be suspended, so as to allow of the appointment of more than three honorary members.

The motion having been seconded by Dr. WOOD, was carried.

Dr. SAVAGE thereupon stated that the Council had deemed this a fitting opportunity to do honour to themselves and to their foreign visitors by the election as honorary members of the following gentlemen, viz.:—

Dr. Brosius, Bendorf-Seyn, near Coblenz; Dr. Brown-Séquard, Paris; Dr. Benedikt, Vienna; Dr. Fournié, Paris; Dr. Hughes, St. Louis, Miss.; Dr. Kraft-Ebing, Graz; Baron Mierzejewski, St. Petersburg; Dr. Peeters, Ghent; Dr. Semal, Mons; Dr. Tamburini, Reggio-Emilia; Dr. Virchow, Berlin; Dr. Voisin, Paris.

Dr. JEPSON seconded the motion, observing that the names of most of the gentlemen nominated were familiar to the Association through the Journal.

The PRESIDENT said that he presumed the Association would not wish the appointment of these gentlemen to take place by ballot. The motion was therefore put to the meeting and carried by acclamation.

The next business was the reception of the report of the Statistical Committee.

Dr. RAYNER, the General Secretary, said that a printed proof of the proposed Statistical Tables had been placed in the hands of each member of the Association. Of course there must be many points on which individual members would wish to offer information and suggestions. To enter upon a discussion of these tables on the present occasion would be to occupy all the remaining time at their disposal. He would therefore recommend that any suggestions made should be forwarded to the Statistical Committee or to the Journal for publication there, and that such proposals as might be made in that way should be considered by the Statistical Committee before the tables were finally issued for adoption. He would therefore propose that the Statistical Tables be received with such amendments as the Committee might make from the suggestions hereafter offered to them by members of the Association.

Dr. YELLOWLEES asked whether Dr. Rayner meant that these documents should lie on the table for consideration and suggestion, and for final adoption next year if so approved?

Dr. RAYNER said that he was hoping that the tables might be tried the next year.

The PRESIDENT said that the Statistical Tables were so extremely important and might involve so much labour on the part of superintendents, that they ought not to be adopted except by the full consent of the Association at the annual meeting. Now he understood Dr. Rayner to propose that the tables should be referred back to the Statistical Committee with power to issue them, subject to amendment made by members. The Statistical Committee had power to add to its numbers.

Dr. RAYNER said that he only insisted upon the utter impracticability of going through the minutiae of the tables on the present occasion.

Dr. J. A. CAMPBELL considered that Dr. Rayner's proposal was very reasonable, but thought that the subject might be put down for the quarterly meetings, taking a portion at a time. There were several substantial points which might require discussion before the tables could be adopted.

Dr. RAYNER said that the Statistical Committee had been very anxious to get the tables to work as soon as possible. If the suggestion Dr. Campbell

made was carried out they would not be adopted until the next annual meeting. Perhaps it would be better to call an extraordinary meeting before the end of the year to ensure the speedy adoption of the tables. By having a special general meeting the committee, having considered the suggestions submitted to them, would be enabled to get their tables adopted for use in the ensuing year.

Dr. YELLOWLEES said he was very unwilling to say anything which might seem to hinder such an important work, but it was very far more important to get the tables accepted in a manner which would ensure their being universally adopted, rather than to get them adopted by the first of January next. If it were possible to get them by the first of January with anything like the consensus of the whole Association let it be done, but if they were not taken up by the whole of the Association it would be better to wait.

Dr. CLOUSTON said, as he understood it, Dr. Rayner's proposal was to use the tables and then to approve of them at the next meeting. That would not do. The Association must formally approve of them before they could come into use. He did not see how they could come into use with any sort of sanction at all on the first of January next year. In the long run it would be better to wait another year, and he thought Dr. Campbell's suggestion would be a very good one, to have the tables submitted and discussed *seriatim* at the quarterly meetings. The more they were discussed the better. He felt sure that it would require all the weight of the Association to get these tables employed generally at the county asylums.

Dr. RAYNER stated that after the expression of opinion which had been elicited he would not press his proposition.

Dr. YELLOWLEES thereupon moved—"That the Statistical Committee be re-appointed, and that the thanks of the Association be conveyed to them for their labours. That the proposed Statistical Tables be laid on the table and be fully discussed at the quarterly meetings. That any suggestions for their alteration be sent from members to the Statistical Committee. And that the tables, as amended, be finally adopted at the next Annual Meeting."

Dr. CLOUSTON said that before they left the subject of the Statistical Tables he should like to hear the experience of some of the Irish members.

Mr. COURTENAY said they were not their own masters in the matter. They would have to persuade the Inspectors of Irish Asylums to adopt the tables before the Medical Superintendents could venture to do so.

Dr. RINGROSE ATKINS said that although they could not introduce the tables into their reports, having to adopt those tables which were given to them by the executive, they might very fairly adopt them in the body of their own statements and thus make them available.

Dr. BRUSHFIELD had not yet fairly gone into the tables, and he certainly agreed with Dr. Campbell in suggesting that the tables should be discussed at the various quarterly meetings, and then submitted at the general meeting.

Dr. OSCAR WOODS said that it was impossible both to make up tables accurately and to compare them with English tables. They really got no history of their patients at all, and until something was done to get the history of the patients admitted, the system would be incomplete. Something should be done to assimilate the tables for England and Ireland. At present the Irish Asylums showed very favourable statistics indeed. Whether they were all correct or not he was not prepared to say, but at present they compared very favourably indeed with the English ones.

Dr. JEPSON agreed with Dr. Brushfield that the matter had come before them a little too suddenly to be adopted all at once. He had looked over them very briefly and thought there were some very good points about them, but on the other hand he thought there might be some good suggestions, and he thought it would be a good thing to refer them to the quarterly meetings. They might then be finally approved of at the next annual meeting.

Dr. BACON said he thought they would gain very little by further delay, and he should vote for adopting the tables at once, for the simple reason that any

elaborate discussion upon them was practically impossible. If they were to have the quarterly meetings occupied by the consideration of those statistics, where would their other work be? There would be as many amendments as there were columns in the tables. He thought they might trust to those who had considered the forms. If they were to consider all the details there would be no end to it, and he doubted whether they would be much more forward at the end of the year than they were that day. The new tables certainly involved a great deal of extra labour, and he was not prepared to say that they were so much more valuable, but he thought they would do better to swallow them at once.

The PRESIDENT remarked that it seemed to be the general feeling of the meeting that the tables should not be adopted off-hand, and he was not surprised at this. The tables were so important and elaborate, and involved so much work. In fact in relation to one table which he had himself proposed, one of his friends had kindly threatened that he should be burnt in effigy for suggesting it.

The PRESIDENT asked Dr. Bacon whether he would wish to move an amendment?

Dr. BACON—No, I am not prepared to do that.

The resolution proposed by Dr. YELLOWLEES was seconded by Dr. CAMPBELL and carried.

Dr. RAYNER, the General Secretary, reported that the Committee appointed to consider the Lunacy Law Amendment Bill met on two or three occasions and thoroughly went through the Bill, drawing up certain suggestions thereon. As the Bill had been withdrawn it would be scarcely necessary to submit those suggestions to the Association on the present occasion. The Committee would continue their work during the next winter, and would, he hoped, have some suggestions to submit to the Association before the next meeting of Parliament.

Dr. McDOWALL said that he had that morning brought before the Council a matter which had been a good deal canvassed of late among English superintendents. They would most of them be aware that in Scotland and Ireland medical superintendents were not debarred from consulting practice in their own specialty. In England they were debarred from it either by a distinct rule in their asylums or by the interference of the Commissioners in Lunacy. Most of them, no doubt, had received disagreeable letters from the Commissioners in Lunacy on the subject, asking the superintendent whether he had received any fee, &c. Naturally, the English superintendents felt themselves somewhat rather sat upon. He saw no very just reason why Asylum superintendents should be shut out from the work. In Scotland and Ireland it was done, and in England it was notorious that several well known asylums were managed by men who had as much consulting practice as they could well hold. He suggested that steps should be taken to approach the Home Secretary with a view to the abolition of these restrictions. He did not think the Asylum work would suffer, and it would be a great benefit to the superintendents in many respects. He would therefore propose that some means be taken to bring the views of the Association under the notice of the Commissioners in Lunacy and the Home Secretary.

Dr. CLOUSTON wished to make a remark before they left the question of the Parliamentary Committee. There was one grievance which prevailed in Scotland in regard to district asylums which he hoped the Committee would not pass over, and that was that there was no pension clause in Scotland. The efforts previously made to obtain it had hitherto failed, but it deserved to be well supported, and he was sure that the Scotch members would receive the support of the Association. It scarcely applied to the Royal asylums so much as to the district and parochial asylums, but it was such a monstrous injustice that he trusted the Association would back up the Scotch members.

Dr. RAYNER suggested that Dr. Clouston would probably agree with the adoption in Scotland of the suggestions which were made by the Association in 1879?

Dr. YELLOWLEES said that if those could be made available to Scotland the Scotch members would be quite satisfied.

Dr. SPENCE then seconded Dr. MacDowall's proposal as to the removal of restrictions as regards consulting practice, but after some further discussion the motion was withdrawn upon the understanding that the subject would receive the attention of the Council.

Dr. RAYNER brought before the Association a proposal for instituting local meetings at the various asylums. This was, he said, one of the great objects of the Association when it was first established, but it had in course of time passed almost entirely out of sight. He suggested that districts should be formed in the same way as in the British Medical Association—say three or four districts for England, two for Ireland, and two for Scotland; each of those districts to hold a meeting once or twice in the year as the Association might adopt, such meeting to be held at one of the asylums in the district. In this way he thought the various superintendents would be brought together more closely. The meetings, in addition to their social character, would include the discussion of various subjects in connection with asylum management. The special set of subjects to be discussed should be decided on at a general meeting of the Association, and the result of the discussions at the asylums should be submitted to a separate committee, which would consider the same, submitting their conclusions thereon to the Association at the Annual Meeting.

Dr. R. ATKINS said that he could support Dr. Rayner's proposal, having seen the good which resulted from a similar system in connection with the British Medical Association. There were however, some difficulties in Ireland, the asylums being so far apart, with in some cases insufficient assistance to enable the medical superintendents to leave.

Dr. CAMPBELL said that they had had a great number of meetings already, and did very little at them. He thought, however, that they might hold two meetings in Ireland similar to the quarterly meetings in England and Scotland. He thought that cutting up the country into districts would not work well. Social meetings had worked, but they were almost altogether social meetings. (No, no.)

Dr. MOULD said that over twenty years ago there was a meeting of that character in the north of England, and he rather disagreed with Dr. Campbell about the exclusively social character of it. That was most excellent, but the scientific character of the meeting was very profitable. They used to meet every six months. Dr. Clouston and others used to attend the meetings. There was one little drawback which caused it to come to an end, and that was that one or two of the members were made Commissioners. That was a sad fate, but he did not see why that should be a drawback to future meetings. (Laughter.)

Dr. HINGSTON was very sorry to express a dissenting opinion, but he thought the proposed plan would not be a success. Though he had not been a member sufficiently long to be associated with the local meetings, he had heard that these parties of "wandering lunatics" as some had styled them, were not successful, and taking into account the number of scientific meetings where men engaged in lunacy could meet men engaged in general practice, promoting by that means a mixture of ideas which would be useful to both, and considering also the special meetings of their Association, together with the difficulties of distances in the country, he thought it would be practically impossible for men in the country to meet as often as would make it worth having; and as there were other associations which they might with greater advantage join, he thought it would be undesirable to carry out the suggestion.

Dr. RAYNER said that the success of the plan he proposed depended upon its being adopted with unanimity, and as there seemed to be some difference of opinion as to its expediency, he should withdraw it.

Dr. J. A. CAMPBELL read a paper on "Complaints by Insane Patients." (See Original Articles p. 342.)

The PRESIDENT observed that Dr. Campbell's paper was a very valuable and suggestive one, and would, he hoped, lead to a very interesting discussion. He suggested that the further consideration of the paper should stand over till the afternoon sitting. He then invited them to lunch, and to be photographed in a group in front of the College.

The meeting then adjourned.

AFTERNOON MEETING.

DR. HACK TUKE, the President, having again taken the chair, delivered his Address, which is printed at page 305 of this Journal (Original Articles, No. 1).

Shortly after the commencement of the President's address the EARL OF SHAFTESBURY entered the room. On the conclusion of the Address his Lordship rose and said—Gentlemen: It gives me much pleasure to propose a vote of thanks to the gentleman who has just delivered so admirable an Address, and I do it very sincerely. In some measure I may, I think, be qualified for the task. There are very few people living at this moment who could know what took place in the early years, when I first began the investigation of lunacy—in 1828. We then sat upon a Committee, and visited several houses, and afterwards the Bill was passed, and the provisions were framed, which enabled us to visit the lunatic asylums. I can tell you this, that anything more disgraceful, anything more shockingly oppressive, marked by iniquity as it was, it is impossible to describe. When I tell you that in one house alone, on a Saturday, at 4 o'clock, from 200 to 250 were chained down in their cribs and left there till six on Monday morning, no human being going near them, a jug of water and some bread being left by each crib, that will give you some idea of the enormity of the system. There was utter and complete ignorance upon the subject of lunacy. The lunatic was looked upon as being beyond cure and care. See now the reasonable care that is manifested towards lunatics; and the moral treatment. Of late years you have learnt that employment, healthful occupation in many ways, such as agriculture, are absolutely requisite to the recovery of the patient, and the medical man has been led to study the case fully, knowing that the law has declared that the state of things which prevailed before shall no longer prevail. It is a remarkable thing that at the present day there should be so many medical men in all parts of this country all capable of testing the condition of the patient's mind, and giving a certificate which to all intents and purposes is just. In 1859 a Committee sat in the House of Commons, and investigated the whole treatment of lunacy. Another sat in 1877. Between those years there were 185,000 certificates issued, warranting the detaining of patients. The Committee of 1877 sat six months; the whole subject was brought before it, and they certainly did not hit a single blot in which a patient out of all that number had been shut up without sufficient evidence of insanity. When I see and know that there is an Association formed like this, and that medical men are devoting their attention so much, and more than ever, to the subject, I think there are very great hopes indeed for the future. I was very glad to hear what Dr. Tuke said about the model superintendent. I verily believe that the superintendent is a man of priceless value. I believe that it would be impossible to carry on your asylums, private or public, in any satisfactory way without having at the head of the house men of sympathy, kindness, of conscience. I have known many superintendents, and I can allude appropriately to my friend, Mr. Gaskell, to whom the President has referred. A more intelligent man never existed. May I tell you what first attracted my attention to him? I think it was an inspiration of genius on his part. It happened to be the meat day when I visited the Lancaster Asylum. To my astonishment I saw about forty women sitting at dinner, each

with a child in her arms. I said, "What is this?" "Well," he said, "it is an experiment I am making. Here are several women wanting occupation, and there are several children wanting care. So these women have the exclusive care of the children day and night." It was positively a stroke of inspiration in the man. It was his aim to develop in the women the great principle of maternal love—that those women should receive the blessing of children and the children receive the blessings of motherly care. I never was so pleased, and this is a proof of it. When I went away, I said, "By God's blessing, if ever I have the opportunity, that man shall be a Commissioner." When a vacancy occurred, I wrote to the Lord Chancellor, and said, "I want to name a man to you." "Name your man," he replied, and he was at once accepted. I am not going to enter into what I am ignorant about, but I may say that I am perfectly sure that in nine cases out of ten, if we can secure early treatment and due superintending care, great good will result, and we shall do more to abate the miseries of lunacy and diminish the amount of lunacy in this country than by any other means. The tendency is to place cases under treatment too late, and to let them out too early. We must watch this very carefully indeed. It is an extremely difficult matter, because there is justly a great deal of feeling as regards the liberty of the subject. Let me now venture to propose to you, gentlemen, a vote of thanks to Dr. Hack Tuke, a gentleman well-known to us all, for the admirable Address he has delivered, expressing my sincere hope, and belief too, that the course of his Presidency may be marked by the same degree of accuracy and judgment which he has exhibited in the Address he has just delivered to you (applause).

Dr. BUCKNILL said he rose with great pleasure to second the motion which had been proposed by the Earl of Shaftesbury, marked as the Address was by fairness, liberality, and breadth of view. He felt quite incompetent to add anything to the eloquent words which his Lordship had addressed to them.

The Earl of SHAFTESBURY then put the motion to the meeting, and it was carried with applause.

The PRESIDENT said he could not find adequate words to express his sense of the extraordinary kindness of the terms which had been used in reference to his Address, most inadequate as he felt it to be on the present exceptionally important occasion.

Dr. BUCKNILL said that it appeared to him that their President had, from personal modesty, fixed his date a little too late. He might have gone farther back to the period when his ancestor established one of the early hospitals for the insane—the Retreat at York. His Lordship had stated what took place in regard to patients who were chained from Saturday till Monday, but in those days there were some who were always chained. He would refer to the building at Bootham, in the good city of York, about 1815 or 1816, part of which was understood to have been burnt down to hide the records of its iniquities. It was in undoubted evidence that in one room a considerable number of women were always chained in a state of nudity. The state of these institutions was revealed before a Parliamentary Committee in 1815, but prior to that, the ancestor of their President went at the matter out of hand in the practical manner in which the Quakers were in the habit of doing things (for he was a member of the Society of Friends), and established the Retreat at York. He regretted that there was no history of the hospitals for the insane, and wished some of their friends would endeavour to collate such a history, beginning with the history of that majestic charity of which they were so proud in London, namely, Bethlehem Hospital. He believed that the Retreat at York was founded as an example of what things ought to be, and was one of the first of those institutions which covered the country to a certain extent in after years.

The PRESIDENT said he thought they ought not to let Lord Shaftesbury leave the room without conveying to him their sincere thanks for leaving his multifarious and arduous duties and coming among them that day (applause).

The Earl of SHAFTESBURY briefly responded.

The discussion on Dr. Campbell's paper was again postponed,* many members having to go to the Informal Reception of the Congress, at the College of Physicians, and the meeting separated.

THE DINNER.

The members of the Association dined together in the evening at the Freemasons' Tavern, when they were joined by several distinguished visitors.

The usual loyal toasts having been duly honoured, the PRESIDENT, Dr. Hack Tuke, proposed the health of "The Bench and the Bar," referring to the close connection existing between the legal and medical professions in relation to the question of the responsibility of the insane. Alluding to the dogma laid down by a writer in bygone times, that all crimes of enormity committed by the insane should be followed by the extreme penalty of the law, he compared it with the more enlightened opinions entertained by jurists of the present day. He enlarged upon the importance of medical men studying the subject of mental responsibility from the lawyer's point of view, as well as their own, and suggested that a little knowledge of mental psychology would not be found altogether useless by members of the legal profession.

Mr. JUSTICE FRY, in responding, said that he fully concurred in the desirability of mutual intercourse between the legal and medical professions upon the important subject alluded to. He would not then enter upon the difficult question as to how far the terrible disease, which it was specially the province of the medical men present to meet, was related to that other disease which the lawyers could only recognise by the name of sin; but he wished to express the very strong feeling of regard and respect which he was sure was entertained, both by the Bench and the Bar, for all those medical witnesses who came forward to give evidence concerning the real truth of the case, and who did not come forward merely as the sworn advocates of the cause they represented. None but those who had the responsibility of administering justice could fully appreciate the value of the assistance of such medical men in discovering the truth. On the other hand he could not criticise too strongly witnesses who came forward to assist merely on their own side. He thanked the Association most warmly for the toast which had been proposed, and with which his own name and that of Mr Thomas Bucknill had been coupled.

The PRESIDENT said that he must congratulate the Association upon having as their guests that evening several distinguished foreign psychologists, and he felt that the Association would join with him in wishing them all a most hearty welcome. Among those who were present with them that evening he might mention Professor Laségue, M. Foville, M. Motet, and Professor Ball, all well known to the Association as eminent members of the profession in France. From Austria they had Professor Benedikt and Dr. Müller; from Switzerland, Dr. von Speyr; from Italy, Professor Tamburini; from America, Dr. Whitmer, and Professor Osler from Canada.

Professor LASÉGUE responded, and reciprocated, on behalf of the foreign guests, the kind feelings which had been expressed towards them by the Association.

The health of the Commissioners in Lunacy, and the Lord Chancellor's Visitors, was proposed by Dr. SAVAGE, and responded to by Drs. WILLIAMS and CRICHTON BROWNE. The remaining toasts were, "The President," proposed by Dr. BUCKNILL; "The Prosperity of the Association," by the PRESIDENT; "The Ex-President," "The President-Elect," "The Council and Officers."

* It is to be hoped that this important Paper will be discussed at the next Quarterly Meeting in London.—[Eds.]

THE INTERNATIONAL MEDICAL CONGRESS.

SECTION VIII.—MENTAL DISEASES.

PRESIDENT.

Dr. LOCKHART ROBERTSON

VICE-PRESIDENTS.

Dr. CRICHTON BROWNE, LL.D., F.R.S.E., Dr. MAUDSLEY.

COUNCIL.

Dr. J. ASHE, Dundrum, Dublin.	Dr. W. ORANGE, Broadmoor.
Dr. BLANDFORD, London.	Dr. H. RAYNER, Hanwell.
Dr. T. S. CLOUSTON, Edinburgh.	Dr. CLAYE SHAW, Banstead.
Dr. J. A. EAMES, Cork.	Dr. SIBBALD, Edinburgh.
Dr. ARTHUR MITCHELL, Edinburgh.	Dr. HACK TUKE, London.
Dr. H. MONRO, London.	Dr. S. W. D. WILLIAMS, Haywards Heath.

SECRETARIES.

Dr. GASQUET, Dr. SAVAGE.

WEDNESDAY, AUGUST 3RD.

THE PRESIDENT'S ADDRESS.

This has already appeared in the medical journals. (See "*Lancet*," Aug. 6.)

THURSDAY, AUGUST 4TH.

In the absence of Dr. Robertson, the chair was taken by Dr. C. Browne. Dr. ACHILLE FOVILLE read a Paper on Megalomania. (*Delire de Grandeurs*).

ABSTRACT.

This form of insanity has hitherto been usually considered to be a symptom of general paralysis. Dr. Foville's object was to show that there are two distinct kinds of "megalomania," the exalted delusions being either fleeting, inconsistent, and generalized, or systematic and permanent.

The former variety is best known as a symptom of general paralysis, but it may also occur, for a short time, in the course of ordinary mania, of organic brain disease, and of alcoholism. In all these cases it is probably connected with hyperæmia of the cortex of the brain.

The second variety is always chronic in its evolution, and is almost always incurable, the grandiose delusions gradually fading away into dementia. It is always accompanied with other symptoms, usually hallucinations and delusions of persecution, which have usually preceded the belief that the patient's personality is changed to one of greater wealth and importance. It is therefore closely connected with melancholia.

DISCUSSION.

Dr. SAVAGE said that the question of exaltation, as pointed out by Dr. Foville, had always been an attractive one, both from the merely clinical point of view and also from the philosophical point of view. He thought they must all acknowledge at once the correctness of the distinctions made by Dr. Foville—the two essentially different kinds of exaltation. He had been in the habit, when speaking of those cases, of speaking of the exaltation of ideas associated with mental depression, as the destructive exaltation—and on the other hand comparing it with the other kind which might be called the exaltation of construction. The loss of the higher intellectual control, inability to compare yourself with what you have been and with your surroundings, with the mere intellectual registration of what you feel: you feel well, and you think at once that

you never felt like it before, because the power of comparing your past and present has disappeared—that is a possible way of explaining some cases of exaltation. The facts are these:—That with slow intellectual degradation you very commonly have this exaltation. On the other hand the other kind of exaltation had been well described by Professor Foville: the exaltation of construction seems to be that with a later arrangement of ideas the castle in the air is developed; and this castle in the air slowly develops into a fixed idea. He was very interested to hear the association of such delusions with natural or illegitimate children. He had been inclined to call this disease “the insanity of governesses.” At Bethlem they had had many such cases. A woman highly educated—beyond her social station perhaps—is introduced into a family of some noblemen, or into surroundings that she has not been brought up in, and there she is to teach the children of these noblemen; yet she is treated as a servant, and she feels, with her delicate mental powers, that things are not just. She has got the greatest amount of intellectual powers (and surely of all things intellectual powers are most valuable) and yet she is considered as a servant. The solitary life—the brooding upon her not being recognized as she should be—seems to develop these ideas till the constantly wishing and longing for something becomes at last the idea “I am so and so.” This is exemplified thus: At one time we find an English governess who was in the family of a Russian Prince. She seems to have looked about her, and thought, “Who could be greater than a Russian Prince?”—“Why, possibly a Prussian Prince;”—and she consequently became in her ideas the wife of a Prussian Prince. He quite agreed with Dr Foville, but made the distinction from two points of view, namely, destructive and constructive.

Dr. CLOUSTON quite agreed with Dr. Savage as regarded the exact clinical distinction which Dr. Foville had given as to two generic varieties of exaltation. He had been interested in hearing Dr. Savage’s interpretation of those distinctions. He himself had made a somewhat different distinction. Recognising in a general way the distinction between the two kinds of exaltation, he had always put the one down as an affective exaltation and the other as an intellectual or cognitive exaltation. The one was accompanied by general mental deterioration and “dissolution”—by, in fact, a reversion to the child condition, intellectually the child condition of affective exaltation being present. The other always began with mental depression of greater or less duration. The one was really accompanied by a destructive general lesion either of the cells, as in general paralysis or senile exaltations, or of the vascular substance as in acute mania. The other might be regarded as a limited dynamical disorder. He suggested whether it did not in all cases arise out of melancholia. He had just then a case which corresponded in almost all particulars with those cited by Dr. Foville. He need not go into particulars, but there was one point he must mention, which was that there was an element of melancholy still remaining occasionally. The patient was a little exalted, but there was a tendency to affective depression of feeling, and along with this he had a poet’s temperament. From the beginning his temperament was the over-sensitive one that was ever ready to feel insults and slights, and he was at that time in many respects really a dangerous patient. He (Dr. Clouston), however, felt so strongly for his sensitive temperament that he continued to allow him to go on parole, sketching in the neighbourhood, and amusing himself in other ways; disregarding, practically, the numerous scrapes into which he got. He was constantly writing to the Queen and all sorts of people, and making all sorts of bothers one way and another. When he was shut up he was one of the most miserable of men on account of his sensitive temperament, but when he was allowed a great deal of liberty he certainly did enjoy an immense amount of happiness. In the treatment of many of these cases, it was worth while, if they were not actually dangerous, to allow them a great deal of liberty, because they were extremely sensitive. He was quite sure that they all felt deeply indebted to Dr. Foville for his carefully prepared and valuable paper.

Dr. MAUDSLEY referred to the observations of Dr. Foville as to the second variety of exaltation among natural children. Curiously enough, in relation to

the second form of the disease which commences with depression and delusions of persecution and passes on to delusions of exaltation, finally subsiding into cases of dementia more or less; the most remarkable case he had ever seen was that of an illegitimate child. That individual began by the delusion that people were speaking ill of him; and then, by that sort of logic which is often manifested in these cases, he began to think he could not be persecuted in that way unless he was a much greater personage than he thought he was. He got into a condition of grandiose delusion, subsiding by degrees into dementia.

Dr. A. DE JONG was understood to say that general paralysis was not invariably associated with grandiose delusions, but sometimes the opposite. He believed that the delusions of grandeur, in the disease, were due principally to the emotional conditions prevailing. In other cases he believed that that form of megalomania was congenital in its predisposition; always in his experience beginning with hysteria in hypochondria. Hence he considered megalomania to be also the second stage of a disease of which hypochondria was the first stage.

Dr. IRELAND said that, as he understood Dr. Foville, there was in some cases a feeling of grandeur or exaltation, and in some cases a feeling of humiliation, and that both these might exist at the same time, as was sometimes the case in general paralysis. The explanation probably was that the individual feels sometimes humiliated, but he also feels that he is not so much valued as he ought to be; and that feeling sometimes takes the form of a boast and sometimes of a complaint. He was much interested in the assertion of Dr. Foville that the number of patients affected by this megalomania was much greater in illegitimate than in legitimate children. He thought he said as much as one-half. He did not think that this was to be observed in this country, and he would have liked to have got further information upon the point as to whether the causes were moral or physical, and whether they were traceable to the different conditions existing in France.

The PRESIDENT expressed his sense of the great value of such studies as had formed the subject of Dr. Foville's paper. The clinical grouping of such studies and their comparison pathologically were most important. As to the growth of ideas of grandeur—in these days of rapid social changes, ideas of grandeur existed more or less in every human mind. Every young man on entering life indulged in ideas of grandeur—if they were not repressed of course they tended to enlarge and expand. In the undisciplined and morbid mind possibility passed into probability, and probability into reality. He begged to express to Dr. Foville, on behalf of the Section, their sense of the great value of his paper. In recent years they had been so occupied with pathological studies that they had not had enough of these clinical studies.

Dr. FOVILLE regretted that he could not reply in English. He laid special stress upon the frequency of the second form of megalomania in illegitimate children. Of twelve cases which he had examined five were those of illegitimate children.

Dr. FOURNIÉ then read his paper on the Physiological Pathology of Hallucinations.

ABSTRACT.

The author began by describing the conditions and nature of memory, in its normal state. He considers this is due to a stimulus transmitted from the cortical cells (which preserve the impressions once made on them) to the optic thalami; and the re-awakening of activity in that ganglion gives rise to an act of memory.

He then proceeded to argue that an hallucination is merely a process in which a stimulus of this kind originates involuntarily and unconsciously in the cortex, and is sufficiently powerful to induce a belief of its external reality.

Hallucinations would thus differ from ordinary acts of memory by their un-

conscious origin, and by their unusual force ; both of these points being due to a disordered condition of the cortical cells.

The stimuli thus produced are derived from the following sources, which therefore are the best basis for a satisfactory classification of hallucinations.

- 1.—The sensations of organic life.
- 2.—The sensations connected with reproduction.
- 3.—The sensations of the special senses.
- 4.—The sensations produced by the voluntary activity of our organs.

The last head is the most important as regards all the higher psychical functions, and speech in particular.

DISCUSSION.

Dr. A. DE JONG suggested whether it was necessary that there should be connection with the periphery of nerves for hallucinations to occur, and hinted that the impressions must travel downwards towards the periphery from the optic thalami.

Dr. MERCIER said that he agreed entirely with Dr. Fournié as to hallucinations resulting from morbid memory, or a too vivid memory, but there was something more than that. There is an active memory which is projected outwardly, but whether this memory consists of or goes with an over activity of the cortex, or whether, as Dr. A. de Jong suggests, the over activity is reflected back again from the optic thalami, there was no evidence to show. He would further remark that in the cases of patients who heard voices, the minds of those patients were in a subjective state which corresponded with no sound in the environment. In the delusion the idea was accepted by the subject as true, whereas in the hallucination of hearing the idea which the voice expressed was not accepted as true. Until Dr. Fournié could bridge that interval they could not accept his theory as applying to the higher centres.

Dr. ASHE said he should be glad to learn whether Dr. Fournié thought it necessary that such hallucinations should always be an act of memory, or whether they might arise simply from a diseased state of the nerves.

Dr. IRELAND said he was going to make the same remark as Dr. Ashe. Dr. Fournié's theory of hallucinations evidently rested upon his theory of memory. If they rejected the one they could not arrive at the other. His theory of memory was developed at greater length in his paper than it was in the abstract supplied to the members, and he (Dr. Ireland) was not prepared to go into the question fully at present, but he considered that there was a very weak point in his nomenclature when he spoke of hallucinations as a perversion of memory taking its origin from memory. It was a very different thing. He called to mind a very remarkable case in which an unfortunate physician, who had been insane for two years, on recovering to perfect sanity analysed his hallucinations, and expressed the opinion that hallucination was not an idea projected. They might have a very vivid imagination, and never have hallucinations at all, and they might have hallucinations without imagination.

Dr. HACK TUKE said that as far as he was able to follow the paper, Dr. Fournié did not refer to that very interesting class of cases in which there was an hallucination perhaps suddenly occurring and as suddenly disappearing, and, as far as one could see, without any organic change in the brain. A certain idea called a sensory centre into play as strongly as if it had been excited from without. The false idea gone, the sensation departed also. That class of cases opened out a very suggestive range of thought ; for instance, a case in which a female patient heard very distinctly the buzz of a May fly in her head, and was worried into a state of melancholia by constantly hearing it. That condition was removed by a ruse—that is to say by a purely mental influence—on the part of the doctor, who pretended to remove it and produced a real fly. She was discharged cured. Some two years after, her brother (thinking her quite well) told her of the ruse which had been practised upon her. Strange to say, the

buzzing of the fly returned that very day, and she had to go back to the asylum. This kind of case seemed analogous to those hypnotic hallucinations which can be produced at will and dispersed at will.

The CHAIRMAN said that Dr. Fournié's theory was analogous to that of Wundt, only Wundt did not believe it to be an act of memory, but one of faintly revived perception—the peripheral expansions of nerves in sense organs as well as nerve centres being involved.

Dr. ASHE referred to the case of Herschell, who was subject to the appearance of mathematical figures.

Dr. FOURNIÉ, in reply, said that he started with the theory that it was an act of memory. In 1872 he had injected into different parts of the brain and had destroyed different parts of the brain with caustic, and he found that they retained sense, but there was no memory. Sensation was perfect as long as the lower portion of the optic thalamus was left entire. Perception, therefore, took place in the cerebral surface and not in the optic thalamus. He thought that the sudden hallucinations referred to by Dr. Hack Tuke were due to a certain congestive condition in the surface of the brain. There need be no organic disease to produce that. He did not agree with the idea that there were sensory centres in the convolutions, but thought that that depended on misinterpreted facts.

Dr. LASÉGUE remarked that he believed memory and hallucination to be perfectly distinct, and he believed that this would have been realised by Dr. Fournié if he had studied hallucinations of sight as well as those of hearing.

Dr. Holler's paper, on "The Method of Preparing Large Sections of Human Brains," was read in his absence by Dr. SAVAGE.

ABSTRACT:

On the method generally, and its advantages over other methods.

Hardening of the brain in bichromate of potash or Muller's fluid without using alcohol.

Making of large sections; instruments needed; staining of these large slices in carmine-ammonia; stained slices next placed in Canada balsam; the stained slices are next fixed on the object glasses; after drying, are reduced in thickness by means of ordinary knives, and then by scraping with tenotomy knives.

The thin sections are sealed after they have been cleared by means of oil of cloves or other essential oil.

Difficulties of the method. Description of the specimens sent.

DISCUSSION.

Dr. BENEDIKT, of Vienna, said that the foregoing method was very wasteful of time as well as material, but it had the enormous advantage of showing the morbid changes very clearly, much more so than in Gudden's sections. In Gudden's sections the morbid appearances were generally destroyed. Moreover Dr. Holler's method was very easily learned, hence it was good for museums where assistants would have to do it.

Dr. A. DE JONG thought that Gudden's sections were only of use in microscopic examinations. He thought that Holler's preparations were often not taken in the same place, hence they gave an incorrect idea of the relative position of things.

Dr. SAVAGE read a paper on "Morbid Appearances produced by Methods of Hardening Nervous Tissues."

ABSTRACT.

Brains and spinal cords of men and of the lower animals were noticed to exhibit certain appearances if long kept in spirit.

These changes were not to be distinguished from the so-called miliary degeneration.

They occurred in the brains of healthy animals and men as much as in those of patients dying from nervous diseases; thus I have found them in all the brains I have examined from the dissecting-room of Guy's—*i.e.*, the brains

which, not belonging to patients dying from nervous diseases, were kept for students to study the normal anatomy from ; I found the changes in brains of idiots, of general paralytics, maniacs, and melancholiacs, in brains of rats, parrots, squirrels, and monkeys.

Examples of modes of preparation and results. Specimens.

Chemical reactions of the miliary bodies.

Other bodies found after preparation. Calloid, amyloid.

DISCUSSION

Dr. BENEDIKT said that the bodies referred to were always found in lacunae of nervous tissue, and hence were more frequently present in pathological than in healthy specimens. He had found them most common in hydrophobia, but they were also found in perfectly healthy animals from birth ; hence they were natural, and not pathological.

Dr. CLOUSTON read a paper on "The Teaching of Psychiatric Medicine."

ABSTRACT.

The great importance of some knowledge of mental diseases to medical men is universally admitted. Opinions differ as to the time and way this is to be acquired and the amount to be taught. A minimum of practical knowledge and experience can and ought to be taught to every student in the last year of his curriculum. It can only be properly taught by seeing cases clinically. A month or two residence, or attendance in an asylum during vacation, or attendance on twelve clinical lectures, would not seriously overburden the curriculum.

Best modes of bringing the features of mental disease under the notice of students so that they may have some real sense and grasp of their meaning. The students must be brought face to face with the patients.

Typical well-marked cases must be selected. The essential features must be pointed out by the instructor. Medico-legal certificates must be actually signed by the student under instructions. He should see a few brains in which pathological changes are well marked, as in general paralysis of the insane. He must be taught to bring mental symptoms and brain changes together in his mind as necessary associates. Students themselves do take a deep interest in these cases, and look upon them as of very high interest. Questions should be set at an examination to test knowledge of mental diseases.

For a more thorough knowledge of mental diseases a three months' course is needed, including systematic lectures, clinical instruction, and pathological demonstrations.

Which students should take this ? All above the average capacity, and all who take five years' study, and all who will undertake public appointments in the public services.

Psychiatric medicine should be an optional subject for examinations for honours.

Author's experience as to how much intelligent students can be taught in three months. A school of medical psychology for practitioners is an ideal not yet to be attained in our busy profession, for one reason, because there are not sufficient practical rewards for those who might so spend a portion of their time.

DISCUSSION.

Dr. BUCKNILL said that from his personal knowledge as an examiner, he was able to answer the question whether medical men as a rule did display any sufficient knowledge of lunacy. The best class of medical men who came up for examination to the College of Physicians, and who must be twenty-four years of age, and as a rule possessed high degrees, did not possess adequate knowledge of insanity, and were not competent to sign certificates. He could remember having attended the clinics of Sir Alexander Morrison at Bethlem,

Dr. Conolly at Hanwell, and others, and Dr. Savage was in the habit of coaching him up. But how were they to teach the vast number of medical students if it were made compulsory? Where were they all to be taught? They must deal with things as they are. He had also visited Dr. Crichton Browne's clinic, and that was perfect in itself; but the number of students was small. He took it that Dr. Browne's plan was perfect as regards the usefulness of teaching the subject thoroughly to a few rather than teaching it in a smattering manner to a large number. They must, he thought, come to one or two conclusions, namely, that there must be a limited number of medical men who could show that they were sufficiently instructed in insanity to be entrusted with the power of signing certificates, or the subject must be made sufficiently known by medical men to enable them all round to do so. He knew they did make great blunders sometimes. He was surprised to hear Lord Shaftesbury's statement when he said yesterday at the meeting of the Medico-Psychological Association that there had been substantial grounds for signing the certificates in 185,000 cases. He could only say that when he was at an asylum he saw several cases where the certificates did not answer to that description.

Dr. CRICHTON BROWNE said that what he had argued against at Cambridge was the introduction of psychology as a compulsory part of a student's work. The question was: Ought it to be a compulsory part of an ordinary medical curriculum, or ought it to come afterwards as a special branch of study after a man had obtained his degree, and when, perhaps, he might be endeavouring to develop into some specialty? At Cambridge he had a paper (which was not read) on the necessity of establishing a school of psychological medicine in London. He then advocated that such a school should be established. It was only fair to say that the system carried out by Dr. Clouston was precisely that which was practised thirty years ago by the greatest teacher of medical psychology he had known, the late Professor Laycock.

FRIDAY, AUGUST 5.

Dr. LOCKHART ROBERTSON in the Chair.

The further discussion of Dr. Clouston's paper was resumed.

Dr. HACK TUKE said that all present would be agreed as to the great importance of a medical student possessing a knowledge of mental diseases, but two difficulties arose which appeared to him to be at present insurmountable. When the London University allowed it to be optional for medical students to attend for three months on the service of an asylum instead of an ordinary hospital, they no doubt did a good work in allowing that privilege, but when they went on to add that it was most important that a medical student going up for his examination of M.B. should be familiar with the forms of mental disease, while at the same time they crowded in so many other subjects for examination, he thought it little less than a mockery. He had seen during the last seven years many students at work, and to add to their curriculum was simply cruel. There were, of course, some young men who could devour anything, but they were exceptions. In addition to his own testimony as to the character and multiplicity of the subjects for study, he might cite Mr. Power, who, as an examiner, had said that questions were asked which were entirely useless, and who had known bewildered students, when a glass of blood, a glass of milk, and a glass of urine were placed before them, to confound the three in the most extraordinary manner. Dr. Clouston, moreover, had been speaking of the University of Edinburgh, and men like Dr. Andrew Clark and Professor Huxley told them that the examination in the University of Edinburgh was quite another thing from that in London. It would be also an exceedingly difficult matter to obtain access to a sufficient number of asylums for the study of clinical medico-psychology. He did not see how, if it were made compulsory, it would be possible, with the means at command, for all the medical students who had to

pass their examination to get that clinical instruction which would be required. At the same time he quite concurred with Dr. Clouston's object and with Dr. Conolly's remark when he said, years ago, that things would never be amended unless mental diseases were made a part of the ordinary curriculum, but then there were the practical difficulties he had mentioned.

Professor MACDONALD, of New York, said that in the United States some little attempt had been made at the teaching, and especially the clinical teaching, of insanity; although, perhaps, not upon so extended a scale as in Great Britain. So far as he had been able to find out, some five or six years ago no clinical instruction in insanity had been given at all, although in some cases didactic instruction had been given in a desultory way, but always without compulsory attendance. He had found very considerable difficulty in commencing this clinical teaching. First of all he had to fight against the prejudice of the lay members of the Board of Commissioners, and he was sorry to say that he had also met with opposition from the practitioners of medicine. One gentleman of considerable prominence in another branch of the medical profession spoke of the proposed presentation of insane patients to the classes as being the most inhuman thing he could conceive. In his (the speaker's) efforts he availed himself of the strong arguments which were derived from faulty certificates, maintaining that the logical argument derived therefrom was that that could alone be remedied by increased instruction. That argument and others enabled him to secure the opportunity of trying for one year the experiment of clinical teaching of the subject in the University of New York, where his chair was. The experiment was entirely successful. He took down some ten or twelve patients each day and the effect upon them was decidedly advantageous. They enjoyed the visit, and were benefited, and it was a very common thing among them to press to be taken again, and when the time came round for the new lectures to commence, some of them applied to be placed upon the list. There had been no accident or untoward result, although they were somewhat inconveniently situated, the asylum being upon an island, and the patients having to be taken to and from the city in a steamer. He had continued it for six years. His plan was to give a course of twelve lectures at the University, and to take the patients to the city. At the conclusion of that course he had been in the habit of giving four lectures in the asylum itself, taking the students through the wards; and these lectures had been attended by practitioners rather than by students. He might say that in the few instances which had come to his knowledge of commitments made by students who had attended his college, the result had been much more satisfactory than in the other cases. He also sent patients from the asylum to another of the city medical colleges, that at Bellevue Hospital, where Prof. Gray, of the Utica Asylum, filled the chair of mental diseases. Clinical lectures in mental disease were also given by Prof. Andrews, the Superintendent of the State Asylum, at Buffalo, also in New York State. He had been very pleased to find out in the past month from visiting Canada at the Session of Medical Superintendents of Insane Asylums, that a system was about to be commenced there for the teaching of psychological medicine in the schools. The plan was to employ some lecturer to go from college to college. It was a matter of great satisfaction for him to have heard this matter brought forward, and to have quoted his experience in support of it.

Professor BAILL, of Paris, begged leave to address the meeting on that subject as being the official representative of psychological teaching in Paris for the last two years. The teaching of mental disease had existed for a number of years, and had passed through the hands of many of the most distinguished men in the country, but it had only become the subject of an official chair since 1877, and practically had only come into operation within the last two years. The course of lectures extended over the whole year, both winter and summer session. He had never found any difficulty in collecting a sufficiently large audience, which might be said to average about one hundred on ordinary days, and sometimes many more. This would prove the interest taken in the

subject, and in Paris, at least, it was found that students were very willing to attend. There were no specific examinations for mental pathology, but he always examined upon mental medicine, and found, as a rule, no difficulty in eliciting satisfactory replies. One could not of course expect from a general student a deep knowledge of mental disease, but in practice it was felt to answer sufficiently well. As regards the humane question, he believed it to be a great mistake to suppose that the feelings of the lunatic should be taken into consideration more than the advancement of the science generally as it concerned both himself and his fellow-patients. There was a sort of contradiction between the requirements of public opinion and that same extraordinary sensitiveness concerning the liberty of the subject. On the one hand, especially in France, so-called "mad doctors" were constantly charged with attacking the liberty of the subject. They were supposed to be confining persons who ought not to be confined, and, on the other hand, a sort of mawkish sentimentality prevailed as regards patients being exhibited in public. Yet it was evident that if practitioners were to give good service, they must be conversant with what they handled. In conclusion, he would repeat that in Paris the official teaching of mental medicine, which succeeded to and was contemporaneous with private teaching, met with no difficulty whatever, required no compulsion to collect an audience, was answered to in a sufficient degree in examinations, and was, most undoubtedly, a great benefit to the community.

Dr. WINSLOW said for some years he had occupied the chair of lecturer on mental diseases at one of their large metropolitan medical schools. When he first received that post he had a class of from two to four students, and it was some satisfaction for him to be able to state that at the close of the last summer session the class had extended to about forty or fifty students. He delivered during the summer session about eight lectures, and a clinic was given nearly every week at one of the asylums. The willingness and interest had increased to a great extent, and the student who cared to avail himself of these opportunities of study would enter upon his career not with a mere smattering of the subject, but with such a knowledge of it as the student of twenty years ago would have had no chance of obtaining. Two important considerations suggested themselves. One was that the attendance at the lectures should be compulsory, and the other was that gentlemen who undertook to teach medical students this, the highest branch of the profession, should be properly remunerated for their services. The chair of psychological medicine in London was quite an honorary one, whereas the professors of other branches were paid for their trouble.

Dr. YELLOWLEES, of Glasgow, said that, recognising the great difficulty of getting students to come to a course of lectures when the attendance was not compulsory, he made his course much shorter; otherwise it was very much the same as Dr. Clouston's. He had a very strong feeling that it was not so difficult to obtain the means of practical instruction in insanity as some of them seemed to think. He did not see why the English County Asylums should not be utilised for the purpose. Out of twelve lectures which he gave six were really afternoon clinics—from three to six o'clock, for instance—and he was quite sure that there was no superintendent present who would not gladly welcome a class of students to his asylum. Moreover, the reflex influence on the superintendent and his work would be extremely good. Surely it was very absurd that great pains should be bestowed in teaching men all about disease of the supra-renal capsules or the tricuspid-valve, which they might never meet, while they should be allowed to be perfectly ignorant of mental disease. He was glad to say that several of his own lectures in Glasgow had been attended by many young men whose attendance had been unsolicited, and who had simply heard through others that such a course was going on, and asked to be allowed to join the class, some of them being practitioners of medicine who found themselves ignorant of the subject and unfit to deal with it in practice.

Dr. MAUDSLEY said that Dr. Hack Tuke did not seem to be fully aware of the

reasons which had prevented the University of London for the present from placing mental diseases in their curriculum. What happened was this. About twenty years ago he brought the subject before the Senate of the University of London—being young and enthusiastic in those days—with the object of getting an examination in mental diseases made compulsory. The authorities of the London University showed every willingness to meet his views as far as they could, but they came to grief in the difficulty of getting clinical instruction. It was considered that it would be extremely unwise to institute an examination in mental diseases in the University of London unless all the students could have clinical instruction, and they found that in London there was an insuperable difficulty to this. In Edinburgh they had greater facilities in every way. The difficulties of divided authority did not exist there to such an extent, and they had an asylum like Morningside, their own asylum, within half an hour's ride. It was a very different thing in London where they had twelve or thirteen schools, controlled by different authorities, with no kind of relation between them favourable for the development of conjoint action. Thus in the metropolis they failed for want of sufficient clinical instruction. The superintendents might be willing, but the governing bodies had to be consulted. Then, again, there were difficulties of distance. To go down to Colney Hatch or Hanwell, supposing those asylums were open to the mass of the students, would take up the best part of a day. Such were the difficulties which were met with in endeavouring to make the thing work. The same thing occurred some years later at the College of Physicians. The late Dr. Sibson brought forward a motion there to the same effect, and the College of Physicians was obliged to stay its action on the same ground. The result of the matter was simply this: that while most of them in London would agree that it was eminently desirable that there should be instruction on mental disease, if possible, it was not at present possible for it to be carried out.

Mr. MOULD said that he was the lecturer on mental diseases at Owen's College, Manchester. He gave about twelve clinical lectures at the Manchester Hospital, Cheadle, arranging with the students to meet their convenience, and he had had a class of thirty-eight students out of about one hundred and eighty, notwithstanding the fact that the hospital was situated at a distance of nine miles from the college. The students infinitely preferred that his lectures should be illustrated from cases directly brought under their observation rather than simply hearing a description of disease at the college itself. His own experience coincided with Dr. Clouston's—that if facilities for clinical instruction in mental diseases were offered to advance medical students they were only too pleased to avail themselves of the opportunity, the more especially if the lectures were essentially practical.

Dr. HARRINGTON TUKE asked to be allowed to refer to what was done some years ago in this direction by the late Dr. Conolly. One of Dr. Conolly's most useful institutions was the course of lectures which he held every summer, and the lectures were attended by about twenty-four students, some of whom had since become very distinguished in their profession. He himself had been very much struck by the following circumstance. Being at a consultation with one of their Presidents, Sir William Gull, he was surprised to find that Sir William knew much more of the special features of the case than they could have expected him to have done. Sir William said, "Oh, you forget that I attended Conolly's lectures some time ago." Those lectures were undoubtedly most useful. The difficulties in London were certainly very great. Dr. Monro, for instance, gave a series of lectures at St. Luke's, and invited the attendance of students. The idea answered well so long as the India Board made it compulsory that students going out to India should know something about mental diseases, but not longer. He thought that no medical man should be allowed to sign a certificate of lunacy unless he had attended lectures of some kind on the subject of mental disease. It would cause no great hardship to say that, if a man could not conveniently attend such lectures, he should resign the slight ad-

vantage of signing certificates. He confessed he did not think that any compulsory attendance on lectures on mental diseases would be of much practical value, but voluntary attendance would indicate a real wish to learn something on the subject. Dr. Macdonald had told them that no practitioner in New York was authorised to sign certificates of lunacy till he had been in practice for three years. That was a step in the right direction, and he (Dr. Harrington Tuke) would still further extend that time. He had the honour of an interview with the noble chairman of the present Royal Commission on the Medical Acts, the Earl of Camperdown, and the noble Earl agreed with him to some extent, but was unable to entertain the question, because it did not come within the objects embraced by the Commission over which he presided. He (Dr. Harrington Tuke) hoped, however, to see the day when no practitioner would be allowed to sign a certificate without some proof that he was acquainted with mental disorder.

Dr. CLOUSTON, in reply, said that on the whole the remarks which had been made coincided with those which he had ventured to suggest in his paper, and he would now say little more than thank the Association for the very earnest attention which had been devoted to the matter. He could not but think that the difficulties stated by Dr. Hack Tuke and Dr. Maudsley to exist in regard to London had been admirably answered by the remarks of Dr. Macdonald and Professor Ball, of Paris. He had no doubt that if it were put to the Association that that which was stated to be impossible in London was done in Paris and New York, the answer, put in a strong manner, would be that what could be done in those cities could be done here. He certainly thought that those difficulties might be overcome by a sufficient amount of enthusiastic attention being directed to the subject, and he had no hesitation in saying that if the subject of mental diseases were made a subject of examination for all the licenses—if the lecturers were allowed to put one question to each student before he passed his degree—all the difficulties in regard to clinical teaching in London would vanish away in less than a week.

Professor BALL read a paper on "The Relations between Insanity and Paralysis Agitans."

ABSTRACT.

Paralysis agitans, though bearing a close resemblance to sundry other brain diseases of recognised anatomical character and seat, must still be classed with the neuroses. It is, therefore, to be expected that disturbance of the psychical functions may occur in the course of shaking palsy, as well as in chorea, epilepsy, &c.; and this is sometimes found to occur. In milder cases, restlessness, irritability, and quarrelsomeness are the only symptoms; but in more severe cases, stupor, hallucinations, insanity of suspicion, despondency, and suicidal tendencies may all be observed.

These symptoms are not due to the pain and motor disturbance, as they may be well marked in otherwise slight cases, and may be absent when much pain is felt.

Cases illustrating these points were related.

DISCUSSION.

Dr. SAVAGE said that it had always seemed to him extremely interesting to find that progressive nervous diseases, which began with some other nervous disease and terminated with mental or intellectual disorder, were more frequently associated with the sensory than the motor tracts, and he thought that Professor Ball's paper was a very valuable one in relation to this subject. It had been scarcely sufficiently recognised that with motor troubles such as paralysis agitans they might have affections ending with mental diseases. They had had cases constantly before them in which ataxic symptoms were first developed, mental disorder had shown itself later on, and dementia had been the result. But he had often asked his friends whether they could point to any case in

which there had been—say a case of essential paralysis going on into insanity. He had a patient who some years ago suffered from infantile paralysis, but recovered to a certain extent. He was now suffering from general paralysis of the insane, and the part which had been originally affected was that which was affected worst in his present attack. But what was paralysis agitans? He was afraid Professor Ball could only tell them of the clinical side—that it was a group of symptoms clinically true enough, but which, pathologically, they knew nothing about. They might talk about disseminated sclerosis, but any symptoms associated with this were likely to vary, because, undoubtedly, no one cause gave rise to paralysis agitans. Professor Ball had very distinctly pointed out the way in which paralysis might grow: that a man who had been strong and had lost power and got to feel that he was an object of contempt was likely to pass into a condition, first of ordinary melancholy and then into actual melancholia. The idea that he is looked down upon, passes into the idea that he is watched, from the idea of only being an object he passes into the idea that he is the subject of persecution. It seemed to him very interesting that in disease associated with the posterior columns—the sensory tracts—seemed to be much more transmissible than the motor tracts. In only one case had he been able distinctly to trace inheritance from paralysis agitans as a neurosis. If it were a neurosis they would find it breeding true. If there were a distinct relationship between paralysis agitans and insanity and other nervous diseases, they would find them interchanging. The only case in his experience in which there seemed to be any distinct relationship was one of the feeblest description—that of a mother who suffered from paralysis agitans coming on some little time after the birth of a child, who had later exhibited symptoms of insanity.

Dr. ATKINS referred to a case of a man suffering from paralysis agitans of a very marked character, who suffered from hallucination that he had something burning inside. Sometimes he was in a condition of intense depression; at other times, when the motion was less, he would become better, and lose the hallucinations. Therefore it seemed as if those hallucinations were connected with the paralysis agitans. The subject was one of extreme interest. Probably there were not many cases.

Dr. RAYNER said he thought that cases of the kind referred to must be very rare. He could only recollect one case in the course of his own experience: that of a man who was covered by a fall of brick rubbish at a house which he was pulling down, and who was not extricated till some time afterwards. He could not say whether the case was traumatic, or whether it resulted from fright. The patient was restless, credulous, manifested loss of memory, etc. In regard to the point raised by Dr. Savage as to heredity, although he (Dr. Rayner) was very careful about the history of any hereditary neurosis, he did not remember having come across any case in which the history of paralysis agitans was found.

Dr. HACK TUKE remarked that (as Professor Ball was no doubt well aware) Kahlbaun in his treatise on Katatonia held that motor troubles, other than general paralysis, were generally associated with stupor, and he would like to know whether the cases under consideration were frequently associated with the type of melancholia-cum-stupor.

Dr. BUCKNILL said he thought they ought to beware of drawing conclusions from a small number of cases so broadly as they were all perhaps apt to do. In order to test the true value of the association of two distinct diseases such as they were considering, they should at least be prepared to say in how many cases one disorder occurred without the other; thus in how many cases of paralysis agitans the disease occurred without any symptoms of insanity. His remark would apply not only to this particular question but broadly to the question of the union of intellectual and physical diseases. He had raised this question before with reference to the question of insanity being the concomitant of syphilitic diseases.

Dr. HUGGARD said he happened to have had under his notice a case of paralysis agitans, in which the patient suffered from recurrent mania. He had

never looked upon the case as one in which the insanity was connected with paralysis agitans. The mental characteristics of the patient he referred to were very marked. The patient suffered alternately from melancholy and depression, and that was followed by excitement. He was at all times a man of great shrewdness, very clever, and of considerable learning. He suffered from exaltation as regards his mental powers. The caution which Dr. Bucknill had just given them was one which they all stood greatly in need of. They frequently lost sight of the accidental connection between certain symptoms. They were in danger of making a mistake in both directions; either by losing sight of the accident of the connection, or, as they were perhaps more apt to do, by looking upon certain symptoms coming under their notice as simply accidental, when, in fact, a relation might exist.

Dr. MERCIER said that he thought that the reason why the concomitant symptoms of paralysis agitans did not attract attention was that they were so obscured by the superior prominence of the physical symptoms. If a patient suffering from paralysis agitans was interrogated, it would be commonly found that while he lay in bed, apparently taking little notice of anyone round him, there was a marked failing of mental power, but that the defect was always of a negative quality. In that connection he thought it was of importance to notice the evidence which they had that the seat of the lesion in paralysis agitans was rather in the hemispheres than in the cord and medulla. In many cases the cord and medulla had been examined, and generally no disease had been found. On the other hand the invasion of the disorder followed the march of the invasion of cases of cerebral disease. It began in the thumbs and fingers, precisely the position in which Jacksonian epilepsy began.

Dr. BALL tendered his best thanks to the Association for the kind reception which they had given to his paper, and said that the discussion which had been raised would lead him to consider the subject in a different and more interesting light than he had previously done. He concurred with the opinion which had been expressed that intellectual troubles were infinitely more frequent in shaking palsy than was generally supposed. In many cases which he had seen he had found a marked alteration of character. Patients were irritable and disagreeable. They failed in intellectual capacity and memory, but positive insanity, such as would justify the patients being locked up, was not of frequent occurrence. In the lesser degree, weakness of memory, restlessness, &c., might be observed. In the other degree, positive insanity might be observed. As regarded the remarks of Dr. Savage that motor troubles would less frequently culminate in insanity than sensory ones, he would point to epilepsy and hysteria as diseases in which the motor centres were affected; but the great difficulty in mentioning the word "sclerosis" was this—that disseminated sclerosis of the nervous centres resembled paralysis agitans, and the question was whether the patient was afflicted with paralysis agitans or was it a case of disseminated sclerosis? In some cases at least paralysis agitans might produce positive insanity, and in a great many cases it did produce mental deficiency and irritability of temper. As regards heredity in paralysis agitans, heredity might be considered in two ways. If it was considered in a direct line they would no doubt meet with a much less number of cases. Insanity itself was not so frequently transmitted from father to son, or mother to daughter, as to be almost a kind of fatality impending over the subject. But, looking at the matter as a whole, and recognizing that nervous diseases go hand-in-hand, they would then be able to say that paralysis agitans was an hereditary disease, because by referring to the family history they frequently found that, if not affected with paralysis agitans, the forefathers had some nervous trouble. He was extremely obliged to Dr. Atkins and the other gentlemen who had mentioned cases which appeared to coincide with his own. He had been at some pains to collect similar facts, and he must own that the literature of the subject appeared to be extremely poor. It might be premised that with regard to the insanity in paralysis agitans, as in other new-fangled symptoms, cases would crop up when once they were looked for. It was a most

extraordinary fact that during centuries the existence of general paralysis of the insane was not noticed. There must have been cases, and yet, before the name had been given to it, it was totally unknown. Take, for instance, that peculiar symptom of spinal disease, defective patella tendon reflex, which is supposed to be a proof of changes in the spinal cord. He would also point to Basedow's disease as another form in which mental disease was observed, although previously it had not been suspected. It was perfectly clear that, as the matter then stood, they must treat it as an ordinary disease, or a neurosis.

Dr. MOTET read an important Medico-Legal Paper bearing on intemperance and moral shocks, of which we have no abstract.

DISCUSSION.

Dr. ASHE said that he could cite some nearly analogous cases which had occurred in his own experience; cases in which people had dissipated constantly, but without becoming actually intoxicated. The patient would have an absolute explosion of insanity, from which he would afterwards completely recover. He quoted one case which he had seen immediately after the attack. There was total dementia, with apprehensions that people were coming to kill him, and so forth. This continued for some time, after which the patient made a very slow but perfect recovery.

Dr. MERCIER said that the importance of Dr. Motet's paper was great, especially from the medico-legal point of view. He remembered a case in which a man had been discovered in an empty and unoccupied house, breaking up the kitchen range with a crowbar. He (Dr. Mercier) was not surprised to hear that the man had been in and out of asylums. He was at that time in a stupid condition, answering questions in a silly and incoherent way. He (Dr. Mercier) certified that the man was insane, but to his great astonishment the man subjected the witnesses, including the doctor, to a cross-examination so acute that it was very unpleasant indeed. The magistrates, however, were satisfied that the man was not insane, and sentenced him to a month's imprisonment. It transpired that he, being a man of unstable brain, and being, moreover, a teetotaller, had taken a considerable dose of beer on the evening he was found. Alcoholic mania, although very transitory, might be very different from delirium tremens. Another case was that of a man who was crying out in the streets that the people were taking his life by means of the telegraph wires. He was then in a state of acute mania with delusions, and on the following morning he was completely well. In this case also the man, being a teetotaller, had suddenly taken a considerable dose of alcoholic liquor.

Dr. MAUDSLEY suggested whether, in these cases of moral traumatism, there might not have been a strong hereditary epileptic tendency. It occurred to him that in these cases of genuine acute mania of a transient kind, during which the person was unconscious, or would forget afterwards what he was doing, that kind of mania might have a sudden outbreak in consequence, perhaps, of the patient's having drunk too much.

Dr. CLOUSTON drew attention to a correct description of this particular variety of disease which had been given by Dr. Hayes Newington, who called it *mania a potu*, and desired that the term should be restricted to this kind of disease. He (Dr. Clouston) quite agreed with Dr. Maudsley as to there having usually been a very strong hereditary tendency.

Dr. BUCKNILL said that he rose to thank Dr. Motet for his paper, and to assure him that so far as he (Dr. Bucknill) was concerned (and he had given much time and thought to the study of the relations of insanity and drunkenness) the idea advanced in the paper was perfectly new. He had read the paper to which Dr. Clouston had referred, and was fully aware of the value of the pamphlet, but it seemed to him to refer to quite a different kind of case, namely, mania following the habitual use of drink, and not alcoholism or any form of delirium tremens. The cases described by M. Motet were, he thought, quite different. There was an interval between the habitual drunken-

ness and the development of the mental symptoms which he himself had seen, and which he fully believed had been faithfully depicted and rightly explained in the interesting, and to him quite novel views, put before them that day.

Dr. MOTET briefly replied, and thanked the Section for the kind reception which they had given to his paper.

Dr. SHUTTLEWORTH read a paper on "Some of the Cranial Characteristics of Idiocy."

ABSTRACT.

Visitors to idiot asylums not uncommonly remark absence of striking abnormalities in size and form of heads of patients. The remark is true so far as a general view of the majority is concerned, but closer examination shows that whilst the average measurement of all the heads does not differ greatly from that of the heads of a like number of normal children,* there exist at each end of the series remarkable deviations. The microcephalic cases on the one hand, and the hydrocephalic and hypertrophic on the other, furnish the most remarkable deviations from the average size; † and attentive investigation shows that, as regards form, there are certain definite peculiarities of the crania, which, indeed, are pretty constantly associated with certain definite varieties of mental defect. Thus in microcephaly, whilst deficient size † is the most striking feature, a forehead tapering to the vertex, an imperfectly developed occiput, and a more or less bird-like physiognomy are frequently associated with quick observation, expressive gesture, but deficient speech. In such cases, formative arrest of the brain may be often traced, ‡ and this would seem to be the primary cause of microcephaly rather than premature synostosis. In cases of the so-called "Mongol" or "Kalmuc" idiocy, again, definite cranial characteristics co-exist with definite mental peculiarities. A parallelism of the planes of the face and of the back of head, a brachycephalic condition, with tendency to equality of longitudinal and transverse cranial measures, an obliquity of superciliary margins of the orbit, and a flattening of the bridge of the nose are in this class of cases associated with a peculiar condition of skin and mucous membrane. Mentally, idiots of this type are very imitative, have a correct ear for time and tune, and are fairly educable. They almost invariably die of phthisis.

In cretinoid idiots the large, irregularly expanded head, the distant orbits, and the depressed root of nose, co-exist with general heaviness, dulness of eyes, and wide and coarse nose and mouth, and a corresponding stupidity and slowness of comprehension; and, speaking generally, similar characteristics exist in the class described by Hilton Fagge and others, as "sporadic cretins." A horizontal position of the basilar process, observed in the former class by Fodéré, Ackermann, and Niépce, does not seem to obtain in the latter class. Sporadic cretins are usually dwarfs, and their mental stature also is of a diminutive kind. They are slow and deliberate in all their actions, and, in some cases, able to express themselves moderately by speech. The resemblance they have to each other in outward appearance is very remarkable.

The cranial characteristics of hydrocephaly consist of a general obovale appearance of the crown looked at from above, the greatest circumference being found at the temples, where there is often a perceptible bulging, and the back of the head being flattened. When active disease has subsided, much improvement is effected in this class by training. In the rarer hypertrophic class, the size of the head is also increased, but the bulging is just above the superciliary ridges (not at the temples), giving the forehead a square appearance.

In some cases of paralytic idiocy atrophy of the brain on the opposite side produces marked asymmetry of cranial contour.‡ Amongst traumatic cases, forceps deliveries are reputed to be a common cause. Comparatively seldom,

* Table of head measures, "Orphan Asylum, Idiot Institution."

† Case by Author pictured in "Journal of Mental Science," xxiv., 433.

‡ Case, "Journal of Mental Science," xxii., 261, &c. (Beach.)

however, is there any cranial deformation; and less than two per cent. of 600 cases noted by me are attributed to use of forceps.

A "scapho-cephalic" (keel shape) distortion of the head is also occasionally observed in idiots, and is attributed to pressure in parturition. Large indentations in skull are sometimes produced by accident, as from kick of horse in case of idiot patient at the Royal Albert Asylum, producing depression large enough to insert two fingers in occipital region. No general rule as to mental condition of traumatic cases can be laid down, the effects varying much with the extent, site and severity of the pressure. Very considerable artificial deformation may be produced by prolonged, but comparatively gentle pressure, without any ill effect on the intelligence, as in the case of the Caucasian "Macro-cephali" of Hippocrates.

Dr. FLETCHER BEACH read a Paper on the "Morphological and Histological Aspects of Cretinoid and Microcephalic Idiocy," illustrated by brains and microscopic sections; also upon "Atrophy of the Brain in Imbeciles, and the Morbid Appearances of Certain Cases of Idiocy," illustrated by microscopic sections.

SATURDAY, AUGUST 6.

Dr. LOCKHART ROBERTSON in the chair.

The discussion of Dr. Shuttleworth and Mr. Fletcher Beach's papers (adjourned from the previous meeting) was proceeded with.

Dr. HUGGARD said that a few months ago he saw an exhibition of deformed heads at the Anthropological Institute, where some of the deformities which had been produced by pressure were very remarkable indeed. In one case the head was prolonged backwards almost in a straight line with the forehead. The mental condition in these cases did not seem to have been in the smallest degree impaired. The custom was found in America and Africa, and strange to say some of the people in whom the alteration in the shape of the head had been greatest appeared to be the most intellectual of their tribe. This would give an important bearing to the subject. He thought that injuries in parturition, to have any real effect, must be due to some sudden lesion. The expansive power of developing the brain is so great as to overcome any corresponding force. The whole of the circumstances of these cases seemed to show that in the lack of development neither the small development of the brain nor the deformity of the skull could be said to stand in relation to each other. They were the effects of a common cause.

Dr. IRELAND said that he had already seen the preparations of a good many of the cases described by Dr. Shuttleworth and Mr. Beach, and he had to thank those gentlemen for placing so much at his disposal. He thought they had chosen their cases very carefully. After referring to the view which had been taken that microcephalism was owing to premature closure of the cranium, he said that there was another kind of theory as to the uterus catching the head of the child and pressing it. He did not think much of that. It so happened that microcephalic idiots might have the fingers less developed than usual, and so on. One of the most curious types which Dr. Shuttleworth mentioned was that of what was called Mongolian. There was some singular correlation of structure. The Mongolian appearance was, as far as he had observed, always associated with a peculiarity of the tongue, which was owing to the great size and development of the papillæ of the tongue. Those cases almost always died of the phthisis. In the type of Mongolian idiot, moreover, the testicles were often either wanting or they were poorly developed. He thought that to Dr. Beach was due the credit of having carefully studied and defined the class of *cretinoid* idiots which were different from the ordinary cretins. The great peculiarity about those idiots was the extraordinary develop-

ment of fat in the triangles of the neck. They owed this observation to Dr. Beach and Dr. Fagge. He thought it very likely that by keeping on studying a few of these marked varieties they might find out something about the nature and causation of idiocy, and, as Dr. Beach himself remarked, it was in this way that they would arrive at generalisation in insanity. At present it was extremely difficult to assign the lesion, or to hope to find out the lesion, which would correspond with a mental aberration or mental defect. They had, however, now got a great deal of information, and it was one of the great advantages of idiot schools that the mental characteristics were carefully studied there. The teacher very soon found out the whole of the capacities and peculiarities of the children, and a medical man would soon understand that, and be prepared to examine in case of death. In regard to the effect which the use of the forceps in delivery had in producing idiocy, he believed that a great many more children were rendered idiotic by prolonged labour than by the use of the forceps, and in a great many cases it was quite possible that the use of the forceps might have saved the infants from idiocy.

Dr. DERRING said, referring to Dr. Shuttleworth's statements as to so-called "Mongol," or "Kalmuc" idiocy, that it seemed to him to be a bad method of procedure to compare a pathological fact to a normal fact. He did not himself at all consider that an idiot could be compared to any inferior human type. The condition of the Mongolian was not only due to the brachycephalic position of the head, but to various other facial characteristics which were not necessarily traceable in the idiot. He thus protested against the tendency to refer to a human type the differences of a pathological type. Then, as to Dr. Shuttleworth's statement that hydrocephalic idiocy was modified by discipline and by care of the primitive disease, did he mean that the shape of the head was modified? He doubted very much that the scaphocephalic condition of the cranium could ever be attributed to compression at the moment of parturition.

Dr. CROCHLEY CLAPHAM remarked that the small back to the head was very noticeable in Dr. Shuttleworth's drawings. In connection with this he would quote a table which showed the relation of the frontal to the encephalon to be as follows:—In general paralysis, 34·4; epilepsy, 35·47; imbecility, 37·11; idiocy, 37·16; mania, 37·31; dementia, 36·26; melancholia, 37·09; senile dementia, 35·41; chronic mania, 37·13; acute insanity, 36·41. The total of all cases was 35·99, namely, women, 35·94, and men, 36·05. Thus the relation of the frontal to the encephalon was as much as 37·16 per cent. in idiocy, whereas in senile dementia it was only 35·41, and in all the male cases it was 36·05; so that in idiocy the average percentage was higher than that of all cases of the male class, which clearly showed that the lesion in idiocy was in the occipital region and not in the frontal. He had noticed in post-mortem examinations that it was the occipital region which was chiefly wanting. It was not all there.

Dr. HACK TUKE said that he had been endeavouring to meet with instances in which mental weakness or idiocy was not associated with a high palate, and that a dentist had obtained for him the casts of two cases of high palates, which he now exhibited; one being that of a young man from Oxford, aged 21, fairly intelligent, fond of shooting, and other sports; and the other—not imbecile—the daughter of a gentleman who had drunk himself to death. There was a very high palate in both instances, as would be seen. He would also hand round the photograph of a case of sporadic cretinism, aged 39, though looking like a child. The chief interest of this case was that although goitre was not present, he discovered that the mother had a very decided one.

Dr. SHUTTLEWORTH, in reply, said that he quite agreed that a certain lesion was necessary to produce alteration in the intelligence, and if he had time to go into the subject of cranial deformation they would find that

some of the most intelligent savage tribes had practised artificial deformation without harm to succeeding generations. Microcephalic cases were rare, but among the five hundred children at the Royal Albert Asylum he had at least seven or eight per cent. whose head measurements did not exceed eighteen inches, and the Mongolian type was abundant, say five or six per cent. As to the cretinoid variety at Darenth, he had only seen one such case in the whole course of his experience in the north. In reference to Dr. Derrington's remarks he could only say that he was not responsible for the appellation of "Mongolian" or "Kalmuc." Dr. Down had given this name, and he founded it upon the idea that there was ethnical degeneration at work. In regard to the hydrocephalic cases, what he had said was that when active disease had subsided much improvement was effected in that class by training. In regard to Dr. Clapham's remarks, there was in microcephalic cases a preponderance of frontal over occipital portions of the brain. Any arrestive course occurring during pregnancy would prevent the development of the brain in the posterior direction. In microcephalic cases he had seen that the frontal convolutions were much better developed than those of the occipital portions of the brain.

Dr. FLETCHER BEACH said that he had made measurements in reference to the development of the frontal portion of the brain. The frontal convolutions were well developed in idiots. In one case the proportions were 61 frontal, 14 parietal, and 25 occipital. In the healthy brain the proportions were respectively, 54, 23, and 23; and in the chimpanzee 49, 23, and 23. In another case reported by him the proportions were 66 frontal, 27 parietal, and 7 occipital. The question which Dr. Hack Tuke had brought under their notice as to the high palate was important. The true position was this—If they had an idiot brought before them with a vaulted palate they would say it was a congenital case. Some time ago, however, at a meeting of dentists there was a case cited in which several members of a family, all sane people, had a vaulted palate; so that all they could say, if an idiot were brought before them and was found to have a vaulted palate, would be that it was a congenital case as regarded the palate.

Professor TAMBURINI read a paper on "Cerebral Localization and Hallucinations."

ABSTRACT.

The author's chief objects were to show that the first discovery of a sensory centre (that of sight) in the cortex cerebri was made by Panizza in 1856; but that the full development of the discovery is due to Ferrier. Some further evidence was adduced to prove that hallucinations are caused by disease of the sensory cortical centres.

DISCUSSION.

Dr. FERRIER said that he could not help feeling much gratified at the allusions which Professor Tamburini had made to him in regard to the localization of the sensory centres. The exact locality of the centres had been a matter of doubt, but he thought as to the work of Professor Tamburini and others that although they might differ in some particulars they would all be in agreement as to the main fact that there were distinct regions of special sense which formed the basis of the perception, and which formed also the centres of registration of the impressions which had been received. He thought that Professor Tamburini had given a correct explanation of hallucinations by supposing that the centres of sensation were irritated. Those who were present at the demonstration which he gave on Thursday evening would have been satisfied that there was a distinct localization of the sensory centres. He had before him two animals. In one case he had destroyed the superior temporo-sphenoidal convolutions in both hemispheres. On firing off a percussion cap one jumped in the air; the other gave no sign.

As regards vision he had seen reason to modify somewhat the views which he had expressed, for he had found that although the angular gyrus was associated with vision, yet there was no entire blindness until the angular gyrus and occipital lobe had been entirely destroyed. Though there might be very great destruction on one side, it was only when the centre was destroyed on both sides that the result was complete. If these experiments were followed up, he thought they would arrive at the localization of the functions of the brain in their subjective and objective aspects, which would be a result of great importance. He believed the time was not far distant when it might be the practical basis of insanity.

Professor BENEDIKT exhibited many specimens of brains of criminals, accompanied with many interesting remarks.

ABSTRACT.

The exhibition of the law of Atypie (a deviation from the type form) discovered by him in the brains of criminals, with a demonstration of this law on 50 preparations exhibited by him at the Congress. The relation of Atypie was considered as a cause of disease.

The law of Atypie consists mainly in the general coalescence of the typical fissures and in the general appearance of the fissure arrangement, which one sees in various classes of mammals.

DISCUSSION.

Dr. MAUDSLEY said that he felt sure that the Section was greatly obliged to Dr. Benedikt for his excellent paper. It represented such an immense amount of labour that it was quite impossible for anyone who had not given that amount to the subject to speak with any authority upon it.

Dr. FLETCHER BEACH observed that he had had one case, an idiot, in whom it was found that the internal perpendicular fissure was not joined to the calcarine fissure.

Dr. BENEDIKT said that the type of confluent fissures was not confined to criminals. All the fissures had a tendency to flow together. In a bad criminal, or an habitual criminal, there must be an incomplete development of all the brain. It was not, so to speak, a machine where there was something too much or too little. It was quite another thing—*atypical* development of the brain. There was at the present day too much diversity in regard to the study of criminal psychology and the ordinary study of the brain. The views entertained by lawyers upon the subject of criminal psychology were frequently very unsatisfactory; and this remark would apply sometimes to their own profession. The police were well acquainted with criminals, but the Professors in the Universities had, perhaps, never seen a criminal, and could not therefore be expected to have that practical knowledge which was necessary to a full comprehension of the subject. Feeling this, he had made a proposal that at every University where there was also a large prison, a clinic should be formed for the study of criminal psychology.

Dr. CRICHTON BROWNE asked what was meant by the flowing together or running together of the fissures? It had appeared to him that Dr. Benedikt had pointed out a number of transverse or secondary fissures.

Dr. BENEDIKT having referred to one of the brains, pointed out that the fissures, as he termed them, were connected one with another, and then came the confluence. He had carefully studied the general appearance of the fissure arrangement among monkeys and the different classes of mammals, and he had found that when two fissures were confluent on the one hemisphere they were not generally on the other hemisphere, and *vice versâ*; so that taking the two hemispheres together there was generally an agreement. As they were aware, inferior races had very simple sutures on the skull; and so when they saw a complicated suture they knew that it was from a higher race.

But complicated sutures were both a sign of perfection and imperfection. In the case of every skull there was a struggle for volume. In some cases there was a bad development, because the sutures were united too soon.

Dr. CRICHTON BROWNE said that the only difficulty which they had had in following Dr. Benedikt's remarks, was that he spoke of "fissures," whereas in England they were in the habit of speaking of "gyri." Upon a hasty summing up of Dr. Benedikt's remarks, the impression which had been left on his (Dr. Crichton Browne's) mind was that the specimens produced were a collection of brains of rather simple structure, in which there were few secondary gyri, and he had seen in that nothing remarkable. The grand test was this (and if there was any peculiarity of character in the brains of criminals, Dr. Benedikt must be prepared to submit to that test): to select twenty brains of criminals out of one hundred of all classes; and he did not think there was anything so remarkable in the brains of criminals as to enable them to be selected in that way. Of course there were several elements to be taken into consideration. Size was one great element, convolitional development another, blood supply another, and microscopical structure another. They had so many categories that he thought it would be unphilosophical to fix upon any one to make it a basis of classification. The mere fact that criminals were men of low type need not be deduced from the structural convolutions of the brain. They had only to look at criminals in their prisons to know that they were men of exceedingly low type. He did not think that Dr. Benedikt had established any distinct departure from ordinary type, which would enable them to say, "That is the brain of a criminal."

Dr. DALLY criticised particularly the phrase, "an inferior race," and the reliance which had been placed upon photographs of criminals which might depend to a great extent upon the position of criminals in prison. He believed the chief factor in criminality to be the present social relations of mankind.

Dr. HACK TUKE said that he had examined the heads of criminals, and although he had not been able to reduce them to any general law, yet he did not doubt such law did exist in the really criminal class. There was a difference between one hundred criminal heads and one hundred other heads, and if Professor Benedikt had proved that there was an abnormal deviation from the form of the human brain in criminals in general, he had succeeded. He might cite an instance which had occurred in his own experience, to show what a striking resemblance sometimes prevailed between the heads of criminals. He had requested someone to take a cast of the head of Rush the murderer. When he went to the prison the man had in his bag a cast of the murderer Palmer's head, and when the governor saw him take it out of the bag, he exclaimed, "Why, you have already taken Rush's cast." The striking feature in these cases was that the transverse parietal diameter, which is usually longer than the anterior, was very much the shortest. The anterior was very much longer. It was to be regretted that the British Government had forbidden any more casts being taken at Newgate. In past years this was done, but it had now been stopped by their scientific Government—when Mr. Cross was Home Secretary.

Dr. SIBBALD said that he gathered from Dr. Benedikt's paper that the running together of the convolutions was an indication of a lower conformation of brain not specially connected with crime, and that when they found a series of brains in which that particular character was shown, namely a lower conformation of brains in one form or another (either in the direction of crime or in some form of intellectual defect), Dr. Benedikt did not intend them to suppose that they would be justified in saying that those had been brains of criminals, but that they would be justified when they saw the running together of the fissures, that the brains were of a type lower than the average.

Dr. NICOLSON said that he had looked into the subject closely for some time. As a result of his own experience in regard to criminals, he considered that, in proportion as they sought to detach criminals as a body from the sphere of sane men, without a sufficient power of demonstrating their deviation from a healthy condition of mind, they ran a risk of getting themselves into considerable trouble, not only with respect to their own special study of insanity, but also in relation to the large social and legal questions which they must bear in mind were related to it. In looking over all the criminal experience which he had had, he was unable to say whether the brain was at fault or not. No doubt in criminals they had a departure from a healthy tone of mind, as was the case sometimes among themselves. But what was crime? That was the point. And at what point were they to relieve a man from responsibility in society? He thought they must have some distinct basis of that sort to go upon, and then find out at what point the word "crime" meant a distinct characteristic in a man by which he might or might not be eliminated from the category. Were they to take the ten commandments or the law of the land as their guide in this matter? The ten commandments were a guide as to their general moral welfare, and the law of the land was the guide by which they were to be tested. The law of the land varied so much in different countries that, unless they were prepared to find that brains were modelled upon the ultimate law by which they were to be tested, the risk would become greater and greater in endeavouring to make out a distinct form for criminals. Bearing all this in mind, he thought that it was almost futile to endeavour to see special characteristics in the brains of criminals simply as such. Take, for instance, a poacher. In all other respects, except poaching, this might be a very decent man, who goes out and shoots game, and gets seven years' penal servitude for it. They had known many such who, apart from poaching proclivities, were as nice men as they would meet anywhere. He could not think that they were in a position to settle that there was some specified and peculiar form of mental development for these people. Take, again, the ordinary thief—the average criminal. That individual acted from a deliberate purpose. He said, "I do not want to work. I must live. I prefer to steal." He (the speaker) had unfortunately not been present during the whole of the debate, but he only wished, apart from what Dr. Benedikt might have said, to tell them that from his own experience he felt rather inclined to resist, until they had very distinct evidence of it, the putting down of crime as some mental deformation. It was a departure from a high level of brain if they liked, but he thought they must put a criminal down on the side of sanity.

Dr. BENEDIKT said that Dr. Hack Tuke had referred to an anecdote showing the remarkable similarity between the skulls of criminals, and he could add to it another. (Dr. Benedikt related a story to the same effect). Crimes were so different in their detail and in their psychology that they could not speak of criminality as a whole, but of general forms of it. Thus the lower races of criminals, the thieves and vagabonds, might be of one type. Those who committed violent crimes in general were microcephalic. He had himself made a great many head measurements, and had found that all the criminals of violence were brachycephalic, and when he had measured the incorrigible he had found lower circumference. The worst class of criminals had a lower type than others. Of course when they were in the presence of a certain specific race of men they would recognise peculiarities special to that race which they would not recognise elsewhere. The type to be found in their prisons in Hungary would differ somewhat from that of the criminals in prisons elsewhere; but that, of course, could be accounted for by difference of race. As regarded Dr. Dally's remarks as to the chief factor in criminality being the present social relations of mankind, there was some truth in this view of the case. For instance, if a law were passed that there was to be no property, then the criminals would be those who were

for property. The real question was one of *atypic*, as he had explained in his paper.

Dr. ALEXANDER ROBERTSON read a paper "On Unilateral Hallucinations and their Relation to Cerebral Localization."

ABSTRACT.

It has long been known that hallucinations may be onesided, and this is shown by references more particularly to the writings of French and German authorities. It appears from their statements that such cases are considered to be very rare, but it is maintained in the paper that their rarity is more apparent than real, and was due to the point having been seldom investigated, at least in the form and stage of insanity when one-sided hallucinations are most frequently present. A short abstract of the conclusions of a former paper by the writer on the subject, read at the annual meeting of the British Medical Association, in 1875, was then submitted, and was followed by brief details of cases since then observed by him. These yield a basis for general considerations respecting the pathology and relations of this class of phenomena. Care is taken to include only such cases as are of cerebral origin; those in which there was disease of the sense-organ, or where there was ground for believing that peripheral disease had crept up along the nerves to the cerebral centres are excluded. It is stated that one-sided hallucinations are most common in the forms of insanity due to alcohol, particularly when they are the result of recent excesses. The degree of frequency of unilateral as compared with bilateral hallucinations was considered, also the comparative liability of the respective senses, and the reason why the unilateral forms should preponderate so greatly as they do in the auditory sense. The fact that they are much more common in the left than the right ear was also noted.

The question, How does it happen that the centre for one side is implicated, while the other is free? was discussed. Much light was thrown on this and other points in cerebro-mental disorders by a study of Sir James Paget's philosophical views on general pathology. A part that is congenitally weaker, or has been enfeebled by disease is apt to be affected first, and to suffer most when a general morbid action arises in the system. This was illustrated from the writer's practice. In unilateral hallucinations the special centre involved is held to be weaker on the one side than the other, through some cause either congenital or acquired, and such an agent as alcohol in the blood acts with special virulence on this part. From this point morbid action spreads generally, involving the mind as a whole.

The psycho-sensorial centres in the convolutions are held to be affected rather than the centres of special sense in the sensorium. It was urged that the general mental disturbance which, in greater or less degree, almost always accompanies the hallucinations or at least quickly supervenes on them, points very distinctly to the supreme centres as the seat of the disorder. In this connection the fact was alluded to that not infrequently auditory hallucinations, both unilateral and bilateral, persist for a day or two after positive insanity has disappeared, and was considered to show that healthy action had been everywhere restored, save in the solitary supreme centre, or centre for hearing.

Attention was directed to the analogy presented by certain motor disorders, particularly jumpings of the legs and body generally, which are occasionally marked symptoms in the initial stage of mania. In relation to the mental disorder these seem to point to the motor convolutions as the centre of morbid action. The psycho-sensorial phenomena under consideration were probably associated with some other portion of the cerebral surface. But though we know the position of the motor centres, we are still in ignorance of the localization of the special senses. Ferrier no doubt indicates with great precision their probable site, and cases are recorded which seem to bear out his conclusions. But the number of these cases is small, and the results of other observations are not in harmony with Ferrier's views.

DISCUSSION.

Dr. CRICHTON BROWNE said he felt sure that the Section would recognise the exceptionally valuable character of Dr. Robertson's paper, which ought to have been read immediately after Professor Tamburini's. Dr. Robertson seemed very clearly to have made out his thesis, namely, that there was a certain localization, and his statement as to the left ear was of a very interesting character. For his own part he should be rather inclined to put a different interpretation upon it, thinking it possible that just as the right hemisphere of the brain was the leading one in regard to motor phenomena, so he thought the left might be the hemisphere in relation to the sensory. Referring to Dr. Ferrier's experiments, he said that they gave greater precision to the remarks as to the centres, and enhanced the value of the observations which Dr. Robertson had made.

Dr. HACK TUKE read a Paper on "Mental Stupor."

ABSTRACT.

Sense in which the term mental stupor is employed in this paper.

Description of three cases of mental stupor with catalepsy in Bethlehem Hospital.

Their nosology in the French classification.

Differences of opinion among alienists in regard to the diagnosis of acute dementia and melancholia attonita or cum stupore.

M. Baillarger's opinion.

Typical illustrations of each of above forms.

Opinion expressed as to the condition of three patients whose cases are mentioned in this paper—that it is allied to somnambulism. Its induction related to the prior mental symptoms.

Result of attempts to cure one of the patients by hypnotism.

Summary.

1.—The cataleptic variety of mental stupor (and probably other varieties also) is caused by the exclusive direction of the mind upon a melancholy delusion; or, if this is absent, from brain exhaustion, due to various causes calculated to paralyze volition, and allow of involuntary action, and this state, when completely established, is no longer one either of melancholia or dementia as regards the patient's actual mental condition at that time, although it may terminate in the latter.

2.—The more cases of so-called acute dementia are investigated, the more they will be found to be examples of mental stupor, combined with melancholia, the physiognomy of indifference masking the feelings of depression, and the discovery of the patient's melancholy delusions and hallucinations being only made by his physician on the recovery of the case.

3.—As to nomenclature; while recognising the different mental states, marked by intensive and melancholic absorption of mind on the one hand, and by an utter blank on the other, the former blends so imperceptibly into the latter, and they so frequently cannot be distinguished until after the patient's recovery, that it appears to me more convenient to employ the term "mental stupor," as comprising both, qualified by the words "with melancholia," when we have certain proof of this condition being present; thus getting rid of the term "acute dementia" altogether, which confounds the curable state in question with a form of mental disorder with which it has not, necessarily, any pathological relation.

DISCUSSION.

Dr. FOVILLE said that he thought that the name to which Dr. Hack Tuke objected had been a translation of a name given by Pinel, and he must say that that name was not now used in France. They never spoke any more in France of "acute dementia."

Dr. CRICHTON BROWNE referred to one phrase made use of by Dr. Hack Tuke, viz., the "the inhibition of the highest centres." What he meant must be a "paralysis of the highest centres."

Dr. HACK TUKE said he was aware the term might be objected to in this sense, but he used it intentionally. He believed that sensory action or a dominant delusion could inhibit—restrain—the action of some of the higher centres.

Dr. BENEDIKT was understood to say that he thought they might separate the two kinds—melancholia and acute dementia. There was a difference in the electrical conductivity of the nerves.

Dr. CLOUSTON said that, unfortunately, he missed hearing the greater part of Dr. Hack Tuke's paper, but he took it that the abstract with which they had been supplied represented the views contained therein; and he merely wished to say, in reference to the clinical distinction between the so-called acute dementia (which had been also called the anergic stupor) and the melancholic stupor, that he thought there was an absolute and clinical difference, and they could not be confused. The more the typical case of each was studied the more absolutely different did the two diseases appear. He had always found that in the two cases the condition of the muscular system was totally different. In the one case they had a resistance to muscular movement. In the other they had no resistance whatever to any such thing. He was most strongly convinced as to the difference between the two diseases. He was ready to admit that there were certain cases where the two seemed to run into each other if they had not been seen from the beginning. As regards the opinion that that condition was allied to somnambulism he would observe that, ordinary somnambulism was a sleeping condition. In this other condition circumstances were totally altered. He certainly hesitated to accept the analogy between somnambulism and any form of mental stupor. It was a very interesting subject, and they were all much obliged to Dr. Hack Tuke for his paper.

Dr. BONVILLE FOX, referring to Dr. Hack Tuke's remarks as to the cataleptic variety of mental stupor, said that he understood that there was a suspension of mental power. Was that the usual state of things? At the present time he had a patient under his observation who would stand for hours, if he were allowed, on one leg, or in a similarly stiff position. He could still answer questions, and always said, when asked why he was doing it, that he was benefiting mankind.

Dr. HACK TUKE, in reply, said that there could be no doubt that a great many cases of acute dementia ended in being cases of true dementia. With respect to Dr. Fox's remarks as to the cataleptic condition following the melancholy condition, it was a part of his theory that the melancholy induced the cataleptic state.

MONDAY, AUGUST 8.

Dr. LOCKHART ROBERTSON in the Chair.

Dr. HACK TUKE, referring to the paper which he had read on the previous meeting upon the subject of mental stupor, said that he had had some forms printed for distribution among the members of the Congress, in the hope that gentlemen would be kind enough to contribute thereon the particulars of any well-marked case coming under the category of mental stupor; also a circular of enquiry in reference to the two conditions of the so-called acute dementia and melancholia attonita, both in regard to their frequency and their relative curability.

Professor TAMBURINI read a Paper on "Hypnotism," exhibiting a series of graphic tracings taken during hypnotism at Reggio.

DISCUSSION.

Dr. GASQUET said that he felt sure that he should express the feeling of everybody in the meeting in saying that the extraordinary detail and scientific severity of Professor Tamburini's examinations really precluded any discussion on the subject. The tracings suggested very important and serious considerations, and it would only be after a careful study of the subject, as it would appear in the Transactions, that they would be able to see where those very important and interesting facts would lead them.

Dr. RAYNER read a Paper on "Gout as Associated with Insanity."

ABSTRACT.

Gout in its acute form followed by insanity. Suppressed gout and symptoms of insanity. Similarity of gouty insanity produced by other blood poisons, such as lead and alcohol.

DISCUSSION.

Dr. SAVAGE said that they certainly did find cases of insanity associated with so-called suppressed gout. Gout really did cause a considerable amount of insanity; but then they wanted a definition of gout. Here and there they got cases which scarcely required definition. A short time back a patient was admitted into Bethlem who had been a free-living man, and had both inherited gout and developed it. He had melancholia, and was suicidal. That man was for months a cause of the utmost anxiety. One day (Dr. Savage said) on going his rounds he saw the patient resting his foot upon the chair, and he said, "It is all right now, sir." He had got an attack of gout, and he was well. He (Dr. Savage) had constantly heard the same thing in relation to people suffering from suppressed gout. He had some doubt about the relationships of neuroses and gout. However, these cases required further investigation.

Dr. CRICHTON BROWNE said that there was no necessary or essential connection between gout and insanity, because there were many thousands of gouty people who never manifested mental disorder. Sometimes, however, gout seemed to mount into absolute mental derangement. It did so, for instance, during the pyrexia of gout, from the protracted pain which the patient suffered. He thought that the gouty tendency often mounted into insanity in the male in the climacteric period—about fifty or sixty in men; and these cases were sometimes cured by an acute attack of gout taking place. After referring to cases similar to those cited, Dr. Crichton Browne alluded to attonic melancholia in girls, associated with depression, loss of energy, &c., and wonderfully relieved by the administration of arsenic. Dr. Mitchell Bruce had called his attention to the connection of gout with the physical symptoms accompanying attonic melancholia, and had no doubt whatever that they were associated with inherited gout.

Professor LASÈGUE delivered a discourse on "Epilepsy"—of great interest, of which unfortunately we have no abstract.

Dr. MOTET said he entirely agreed with the views of Professor Lasègue.

Dr. BUCKNILL read a Paper on "Testamentary Incapacity."

ABSTRACT.

The author commented upon the importance of this subject in this country where testamentary powers are unlimited as distinguished from countries where testamentary powers are restricted by law. He attempted to describe the nature and degree of mental faculty which ought to be recognized as necessary and sufficient for making a valid will. He briefly reviewed the most important legal judgments thereupon, and more fully criticized the judgment of the Court of Queen's Bench in "*Banks v. Goodfellow*," which at present is the leading case. The author then discussed the separate bearing upon testa-

mentary incapacity of delusion, weakness, and confusion of mind, and of the emotional disturbance of insanity, and of imbecility, mania, and monomania; and, finally, he considered the methods of Courts in determination of these questions.

DISCUSSION.

Professor MACDONALD, of New York, said that the subject of testamentary incapacity had frequently arisen in the United States. Recent legislation in the State of New York had done a good deal to prevent useless litigation. Previously, it was open to every one interested in a will to contest it, and the person contesting it was, under any circumstances, able to obtain an allowance from the estate. As to delusions and their effect upon will-making, they had had such cases, one of which he might quote. A Frenchman believing fervently in metempsychosis endeavoured to make his future existence more secure as to care and comfort by leaving his money to the Society for the Prevention of Cruelty to Animals. The will was sustained on the ground that it was based upon a religious belief. In this case there was this to be said—that the persons who benefited by the estate of the deceased were not connected with him; and he thought that in most cases the judge and jury were apt to take a common sense view of the circumstances. In another instance, although the person was certainly insane, the will was sustained, although in it the testator left a considerable sum of money to the physician of the asylum. Perhaps the most remarkable case was one at Flushing. A gentleman suffering from chronic melancholia, with very marked delusions of persecution and ill usage of all kinds, but who was always looking for relief eventually, met a young girl for whom he conceived a great affection, imagining that she was sent to him as a heavenly messenger, and to her he left his property. In this case, too, the will was sustained.

M. MORET pointed out that insanity as such exposed persons affected by it to designing persons. Hence great care must be taken in examining their wills. Perhaps more difficult cases were those of persons not recognised as lunatics, but suffering from coarse cerebral disease causing mental disturbance. He related one of these cases in which the law did not follow the opinion of the experts.

Dr. MAUDSLEY said that the strongest possible evidence they could have in favour of a will was that it should be witnessed by two lawyers. If a will were drawn up by a lawyer, and witnessed by a lawyer and a medical man, that will would almost invariably stand in a court of law. That was his experience. He always advised people who consulted him not to contest a will if it was attested in that way. Passing from that remark to the observations which Dr. Bucknill had made in his paper, he understood Dr. Bucknill to say that the case of *Banks v. Goodfellow* was a case not of monomania, but of general mania. Apart from that, however, he was surprised to hear Dr. Bucknill maintain, as he understood him, that a person suffering from monomania of persecution or other form, should be debarred as an insane person from making a will. It appeared to him (Dr. Maudsley) that a person suffering in that way might make as practically sound a will as any person in that room. The Lord Chief Justice, in ruling as he did in the case referred to, was not original, but followed in the lines of certain American decisions made by one or two of the leading American judges. It had, in fact, seemed to him (Dr. Maudsley) that a genuine advance had been made in that case. He thought that Dr. Bucknill should have taken into consideration that they had in the case referred to what they had not in a case of murder or other crime; they had the will itself, the actual provisions of the will themselves, positive facts for them to judge by; and if the will was exactly that which a sane man would consider that the testator would have made had he been perfectly sane, surely it would be a very strong measure to upset that will

merely because of such delusion the testator may have had. Take the monomania of suspicion. If he made a will in the same manner as if he were perfectly sane, if he showed a coherency of thought and judgment, himself being in possession of all his natural feelings towards those who were to be benefited by the will, surely it would be unfair to upset the will if it were shown that he had a delusion of some kind.

Dr. WILLIAM WOOD said that it seemed desirable to encourage the common sense view of the subject; and he thought that the difficulties presented by it depended in a very great measure upon the sort of idea which they possessed as to what constituted an unsound mind. It did certainly appear to him, as Dr. Maudsley had put it, that it was a most reasonable way of estimating the value of a will to consider what the individual who made it had done apart from mental considerations. They knew that men with delusions could be very rational upon other matters, and why not in the matter of the disposing of their property. There were, for instance, many people in asylums who had no satisfactory home, and who really preferred the constraint of that mode of life to homes which they would be obliged to resort to if they left it, and to suppose that a person, simply from that fact, was unable to make a will was opposed to common sense. The great difficulty was that they set up an imaginary standard as to what constituted unsoundness of mind. It was impossible that they could arrange all the cases that occurred under any possible standard. Each must stand on its own merits. If they took the reasonableness of the will produced he did not think that, without certain limits, they need trouble themselves about the particular state of mind of the individual. So long, however, as the legal profession were imbued with the notions which existed as to what constituted unsoundness of mind, so long would there be differences of opinion. He was strongly in favour of a common sense view of the subject.

Dr. ORANGE said he could join with Dr. Maudsley in expressing a feeling of satisfaction at the judgment given by the Lord Chief Justice, not necessarily because it was a right one, for Dr. Bucknill had done a great deal in proving that another opinion might have been held on the matter, but because he thought it was an advance, as it took matters out of a groove and thoroughly raised the question. Quoting from a judgment of Lord Chief Justice Bovill in 1873 he said that although at that time the line which was taken in regard to the onus of proof might have seemed to be desirable, he thought that the abandonment of that line by subsequent judges had been upon the whole of very great advantage. It ensured that medical evidence would be brought, and that a proper examination should be made with medical evidence and witnesses. It seemed to him that that was a better and safer mode than simply taking the one case of delusion, for the question always followed, "What is delusion?" and as Dr. Macdonald had shown in the case of metempsychosis, considerable difference of opinion might arise upon that point. The later ruling of the Lord Chief Justice would seem to correspond with the former general belief that all insane persons should be inmates of asylums. As to this change of public opinion, however, they had recently heard what the Earl of Shaftesbury thought of it. It was clear that cases must be decided upon their merits.

Dr. CRICHTON BROWNE remarked that they were all agreed that Dr. Bucknill was eminently qualified to deal with the subject. He did not exactly understand Dr. Bucknill to argue that the existence of any kind of delusion in the mind was altogether to interfere with testamentary capacity, for he went on to argue that hypochondriac affections might exist and yet the man might be able to discharge all the ordinary duties of life. It was all very well to say that a delusion was an erroneous belief founded upon disease of the brain, but they could not always recognise the disease except in the delusion, and it was utterly impossible frequently to distinguish between a delusion and a mere feeling,

fancy, or extravagant belief. Those diseases must be considered in the same way as they would consider other than mental diseases. Taking tumours, for instance, there were innocent tumours and there were malignant tumours which tended to spread and to be reproduced in other parts of the system. They could scarcely doubt that there were single isolated ideas which existed in a particular region of the mind, and which did not tend to spread through the mind generally; while there were others of a malignant character which tended to spread through the whole fabric and destroy it generally. In the case of Banks it was certain that the delusions were of a very far reaching and extensive character.

Dr. BUCKNILL said he was rather surprised that Dr. Maudsley should have so carelessly listened to his paper, and especially to that part of it which he ought to have paid attention to—the description of the sufferer and that upon which the whole substance of the proceedings rested. He did not think it necessary to draw a distinction between monomania and mania, but he said that John Banks suffered from the mania of persecution, and he said that it was a mistake to think that he was suffering from monomania. He would only now mention to them the fact that the man had the delusion that the other man was dead, and that he still pursued and molested him. That was mania. Belief in devils and spirits—that was mania. Succession of epileptic fits—that was mania. Therefore he thought it could not be doubted that it was a case of mania of persecution. He did not doubt that he should describe a case of monomania of persecution as quite different from this. Then as to whether a will was a proof of insanity. Lord Penzance had declared that a will could scarcely be conceived which would carry in itself the proof that it was not written by a lunatic. The dispositions of the will might be so reasonable as to convey a proof, taken by itself, that it was a reasonable will, but as in cases quoted this might be unreliable. The particular will in question clearly carried in itself no proof of reason. It was an unnecessary will. It left the property to the heir. With respect to what had been commented on as to the capacity of patients in asylums to make wills, he for one was not at all disposed to dispute it. Not long ago he was called to see a patient in a private asylum for the purpose of making an affidavit for an inquisition. He found the patient quite well. The patient said he wished to make a will, and Dr. Bucknill said that he saw no reason why he should not do so, and expressed that opinion in the court. He understood that, not long afterwards, the patient was taken out of the asylum to the office of the family solicitor; that every precaution was taken to prove his sanity at the time, and the patient made a will that same day. He believed there were many patients in asylums who were competent to make wills. On the other hand he thought there were several persons outside of asylums who were not competent to make wills. He had little more to say except that he very much regretted that no notice had been taken of that which he had considered as a most important point in his paper, viz., the part wherein he fully expressed his opinion, which he was afraid was not understood, that in certain cases of restricted delusions the wills might be made, only it ought to be shown that those delusions had no influence upon the will, and the burden of proof ought to be thrown upon the persons who wished to establish the will. He also wished that a discussion had arisen upon the point of a delusion which might, in an active state, have very likely caused such a condition of mind as to render it inexpedient for the deluded person to make a will, becoming, after a time, so affected that the condition would be quite inoperative, not affecting his conduct in any way.

Dr. OTTO MÜLLER read a Paper "On the Prodromata of Mental Diseases and their Treatment."

ABSTRACT.

1.—Psychiatry has for its object the clinical treatment of the prodromal stages of mental disorders and ought not, as hitherto, to treat only fully developed insanity in asylums.

2.—It has also for its object, both from a scientific and practical point of view, to bring about a close association between Psychiatry and Neuro-pathology, thereby opposing the isolation of psychiatry, and securing to it its full beneficent operation.

3.—The practical physician's ideal of Psychiatry is to found open curative asylums for the prodromal stages, as the most pressing need of the present day.

The following Papers were taken as read:—

EXOPHTHALMIC SYMPTOMS AMONG THE INSANE.

By GEO. H. SAVAGE, M.D.

1.—With true exophthalmic goitre mental symptoms may occur. Three cases. Results of post-mortem examination in two cases.

2.—Some of the symptoms of the disease may occur in cases of general paralysis of the insane. Cases.

3.—Symptoms of this diseased state may recur during attacks of mental disease, and be absent in the intervals. Case.

In this last case hyoscyamine had a markedly good effect.

ON THE VILLAGE TREATMENT OF THE INSANE.

By Dr. PEETERS, Gheel.

1.—What is the part actually taken by Gheel in the cure of the insane in Belgium? Is this the part it should have taken?

2.—The advantage of a family treatment, as exemplified at Gheel in the case of incurable patients.

3.—The influence of Gheel in the treatment of curable patients. The proportion of recoveries there.

MORAL INSANITY.

By Dr. C. H. HUGHES, St. Louis, America.

Moral insanity, included in the term affective insanity, exhibits functional derangement in the affective rather than in the reflective faculties.

1.—If both are affected, then the intellectual is primarily so, and no more than in ordinary passion.

2.—It is to be regretted that, so far, the chief objection has been by assertion that it must be so and so; but we have to consider what we actually find. It does not follow that because these functions are united in health that they cannot be disassociated by disease.

3.—If the intellect is not diseased in the exercise of the emotions such as passions, love, hate, &c., why may not some excess of these exist without intellectual perversion in the case of affective insanity as seen after blows on the head, fevers, &c.

4.—The affective and the reflective functions are not directly related by development, or in decay.

5.—Normal mind is the sum of the aggregate display of cerebro-psychic functions constituting the natural "ego;" abnormal mind consists of such disorder of one or more of the cerebro-psychic functions, as cause so marked a change in the natural psychical characteristics of the individual, whether principally involving the emotions and reasoning powers or will, as to make an inconsistency and inharmony in the person's character, explicable only by disease.

6.—Generally intellectual disorders exist with the affective, such as delusions; but it does not follow because one symptom is absent that the disease does not exist.

7.—Clinically, affective insanity—moral insanity—does exist. The author

protested against the metaphysical objections of the inseparable union of functions.

8.—Justification of the term, moral insanity.

9.—The non-recognition of the disease may be disastrous to the patients from legal points of view.

CHEMICAL INVESTIGATION AND DIAGNOSIS.

By Dr. A. WYNTER BLYTH.

1.—The author details the processes of analysis employed in each case.

2.—He gave examples of the quantitative determination of the urine of hypochondriacs and general paralytics.

3.—He next treated of the blood of the insane giving methods and results, &c., &c.

The PRESIDENT announced that the experiments on hypnotism, which had been offered by Dr. Beard, of New York, had been withdrawn.

THE PRESIDENT also stated that he had received a communication from Professor Tamburini, enclosing photographs of his asylum, which, he felt sure, they would receive with thanks.

Dr. BUCKNILL said that he wished to propose a vote of thanks to Dr. Lockhart Robertson, for the admirable manner in which he had discharged the duties of President.

Dr. HACK TUKE having seconded the motion, the vote of thanks to the President was put to the meeting, and carried with acclamation.

Dr. LOCKHART ROBERTSON briefly thanked the meeting for this expression of their thanks, and, after alluding to the valuable support which he had received from the Vice-Presidents, Drs. Crichton Browne and Maudsley, said that he felt sure that the meeting would join with him in thanking the Secretaries, Drs. Savage and Gasquet, for the hard work they had undertaken in promoting the work of this Section, and which had been attended with such satisfactory results (applause).

Dr. MONRO having seconded this, a vote of thanks to the Secretaries was put to the meeting, and carried unanimously.

Dr. SAVAGE said that, on behalf of Dr. Gasquet and himself, he thanked the meeting most heartily for the vote of thanks. They had worked with perfect satisfaction; they had had help all round, and, with such good materials ready to hand, it was no wonder that the meeting had been a success.

"AFTER CARE" ASSOCIATION.

The Annual Meeting of the Association for the "After Care" of poor and friendless female convalescents from Asylums for the Insane, was held, on 7th July, by kind permission of Dr. Andrew Clark, at his house in Cavendish Square.

There were present the Earl of Shaftesbury (in the chair), Dr. Andrew Clark, Dr. Burnet, Dr. Bucknill, Dr. Mickley, Dr. Lockhart Robertson, Dr. T. C. Shaw, W. G. Marshall, Esq., E. Lushington, Esq., Rev. E. Hawkins, F. Simpson, &c.

Among the ladies present were Lady Frederick Cavendish, Lady Brabazon, the Dowager Lady Lyttelton, the Hon. Mrs. Talbot, the Hon. Miss Fremantle, Mrs. Gladstone and Miss Alice Gladstone, Miss Antrobus, Mrs. Andrew Clark and others.

Dr. LOCKHART ROBERTSON proposed that the Earl of Shaftesbury should take the chair.

The Rev. H. HAWKINS, Hon. Secretary of the Association, read the report, containing a summary of the history of the Society, together with a statement of some results of "After Care."

Dr. ROBERTSON observed that the allowance which Visiting Magistrates were empowered to give to convalescent pauper patients conferred valuable assistance—the amount being about ten shillings a week during a limited period.

Dr. BUCKNILL urged the importance of restricting the offices of the Association to such convalescents as were thoroughly recovered, as he considered that *complete* recovery should be a condition of introduction, by the "After Care Society," into domestic employment. He referred to the importance of influencing magistrates to exercise their power of granting convalescent allowances.

E. H. LUSHINGTON, Esq., spoke of the assistance which might be rendered by the Charity Organization Society.

Dr. ANDREW CLARK directed attention to the circumstance of the Association not being a *begging* institution. He said that recovery was, in some cases, a disaster, for want of a convalescent resort. What a sad thing it was, he remarked, under some conditions, to recover! He considered that there should be a medium of communication between this Association and Convalescent Homes.

W. G. MARSHALL, Esq., also addressed the meeting.

The Earl of SHAFTESBURY said that there should not be *separate* Convalescent Homes for mental cases, as the inmates would thereby be prejudiced.

A vote of thanks was given to the CHAIRMAN, who remarked that it was the 53rd year of his association with the subject of lunacy treatment.

It was proposed and carried, "That a Sub-Committee of the Association be appointed to communicate with the Convalescent Committee of the Charity Organization Society, in order to obtain information for carrying out the objects of this meeting; the sub-committee to consist of Mrs. Clifton, Miss Alice Gladstone, Rev. H. Hawkins.

Thanks were offered to Dr. Andrew Clark for his kind reception of the Association, and the meeting then separated.

Correspondence.

THE "OPEN DOOR" SYSTEM.

To the Editors of "THE JOURNAL OF MENTAL SCIENCE."

GENTLEMEN,—In the July number of the Journal there is a communication from Dr. Needham, asking some details as to the mode and results of the open-door system.

At the outset I would recommend a perusal of Dr. Rutherford's annual report for the year 1880, which answers most of the queries put by Dr. Needham. The Commissioners in Lunacy on reporting on this asylum also enter largely into the subject. There is also a communication of great value, and throwing much light on the system, in a recent number of the "Fortnightly Review," from the pen of the Honourable Francis Scott. The reports of the Fife and Kinross Asylum while under the superintendence of Dr. Tuke and afterwards of Dr. Fraser treat specially of the subject, as also the reports of the Lochgilphead Asylum while under the superintendence of Dr. Rutherford.

Concerning asylums devoted to the care of persons in good circumstances, I am unable to speak; but I may be pardoned giving my expe-

rience of the system as carried out at the Lenzie Asylum, which is solely for pauper patients, and of which I am the Assistant Medical Officer. Before assuming this appointment I had been Assistant Physician for eighteen months in an asylum with locked doors, and managed in the usual way. I had also interested myself in the subject, and was prepared thoroughly to examine the new system, and to form an unprejudiced opinion regarding it.

Passing over, then, Dr. Needham's first enquiry, we will attempt to answer his second, viz., Whether the system has been tried sufficiently long to test its utility? Here we may quote from Dr. Rutherford's report for last year, "All the doors of this asylum were originally constructed to open with ordinary handles and without a key. An unfortunate accident occurred shortly after the opening, due to a patient escaping, not through a door, but through a window, and it was considered prudent to alter those doors opening to the grounds by removing the inside handles. Two years ago (in 1878) these locks were restored to their original condition, and the asylum has since been conducted with open doors, with fewer accidents, a smaller proportion of attendants, and with fewer attempts at escape than formerly."

During these three years, 598 patients have been admitted, many of them being acute cases, and the average population has been 417 in 1878, 430 in 1879, and 470 in 1880. We must also consider the fact that the population of this asylum is drawn from the large commercial and manufacturing city of Glasgow.

During the time I have been in the asylum, now more than a year, I have never, on going over the house, required to use a key except during the night. I do not think that any one can say that so far as this asylum is concerned, the system has not had a fair trial.

The next enquiry, as to whether it has involved such an additional expense as to render it practically incapable of general application can be answered decidedly in the negative. The expense is diminished. The cost of maintenance in this asylum for the year 1880 (deducting the cost of keeping in repair or upholding the buildings, which in Scotch District Asylums and in English County Asylums is charged to the county rate) was eight shillings 2-48 per week, a low rate, and one which compares favourably with other asylums. Those in Scotland average about ten shillings per week. During last year, with a fuller development of the "non-restraint" system, the cost has been less by 7d. than that of 1879, and by 1s. 8d. than that of 1878. Dr. Rutherford says in his report, "The more this system is carried out, the plainer need be the food, and the fewer the extras required to maintain the standard of health, because the patients are brought more into the condition, and demand rather the fare of ordinary labourers than of lunatics kept under the irritating and depressing influences of forced confinement. Under this system, moreover, the breakage and destruction of property is diminished."

Dr. Needham's fourth enquiry is, "Whether it is essential that patients should be occupied in physical labour the whole or greater part of the day?" There can be no doubt that unless the patients are well occupied during the day the difficulties of the "open door" system are much increased. This physical labour, however, need not necessarily be out-door work. Here all the male patients who are physically able, without respect to mental or moral peculiarity, are out of doors a considerable portion of the day. From full employment and increased liberty (which last naturally results from the former), with their accompanying diminished manifestations of insane acts, there proceeds a greater capacity for self-control. The females, however, also enjoy the benefits of the "open door" system, though they do not work out of doors, but are busily employed indoors, knitting, sewing, in the laundry, kitchen, &c.

Dr. Rutherford further says, "Many years ago I used to adopt short hours of work, and had the patients more in the house; but my experience is, it is more satisfactory to keep to the hours that working men are accustomed to, as it makes the work more natural and real. The patients and attendants rise at 5.30 A.M. All are house cleaners until the breakfast hour, which is half-past seven. At half-past eight all go to chapel, where morning prayers are read. At nine o'clock the various working parties are arranged, and inspected by the medical officers, after which they go to work. At one o'clock all return to dinner. At two o'clock all leave the hall and after having been drawn up in line, and again inspected by the Medical Officers, resume their work as in the morning. At six o'clock all return to tea." The indoor amusements are held in the evenings. "This full employment of the patients renders it possible to give greatly extended liberty, and to do away with all remaining forms of mechanical or chemical restraint, such as walled courts, locked doors, stimulants, narcotics, and sedatives."

The fifth enquiry of Dr. Needham is rather an extensive one, and has been more or less answered in the replies to his second, third, and fourth questions.

We require no special contrivance to protect quiet patients from those who are noisy—in fact, excepting in cases of acute disease, we have little noise or excitement in the house. In the article before referred to by the Honourable Francis Scott, Dr. Mitchell, Commissioner in Lunacy, is quoted as having said, "The manifestations of insanity are diminished by the diminution of restraint; common sense would predict what experience shows to be true in this matter." Dr. Fraser, Deputy Commissioner in Lunacy, is also quoted as having said, "There is good reason for the belief that many of the violent maniacs and chronic lunatics which crowd our asylums have been developed by a system of indiscriminate restraint, which in one man excites refractory opposition, and in another fosters inactivity of the brain," and Dr. Sibbald, in his last report on this asylum, dated 9th and 10th February, 1881, says—"No patient was found during the inspection under restraint or in seclusion;" and, again, in the same report, "Very few manifestations of irritability or excitement were seen during the inspection, and this must be regarded as due to the regular and healthy employment in which the patients are kept whose mental condition is apt to produce such manifestations;" while Dr. Rutherford says, "From fuller employment and increased liberty there results a greater capacity of control."

In regard to escapes, we may again quote the Commissioners' last report. Dr. Sibbald says, "The question as to whether it (*i.e.*, the open door system) is accompanied by an increase in the number of escapes is one which has been naturally regarded as important. It is difficult to arrive at a conclusion by merely comparing the statistics of different institutions, as there is not a perfectly uniform understanding of what constitutes an escape—that is, to what extent a patient must have been beyond supervision to make it proper to record the circumstance as an escape. Perhaps as true an indication of the facts may be obtained from the impression on the minds of those who have had personal experience of the various systems, and in regard to this it seems proper to record that the statements of three of the principal officials in the asylum, persons who have had experience of different systems in other asylums, are to the effect that open doors do not increase the number of escapes, and that they greatly decrease the desire to escape." With full employment and freedom from restraint the staff of attendants and nurses must be carefully selected, as much depends on their watchfulness.

The mere fact of having open doors makes them, I think, more vigilant and attentive to their duty.

In regard to the last question as to whether there is anything in the Scotch character rendering an experiment of this kind possible, I would reply that I do not think so. We have a large proportion of Irish patients, and the Irish

are generally regarded as most intractable. No special difficulty, however, is found in their management. They fall into the ways of the house, and are as quiet and orderly as the others. Again, we have a good many patients belonging to the criminal class, some returned convicts, and even with those no difficulty is experienced. Instead of disorder and confusion existing from open doors, as Dr. Needham would *a priori* imagine, let him visit this asylum, and he will find that order and quietness prevail to as great a degree as in any asylum with which I am acquainted, and to a greater degree than in most asylums drawing their patients exclusively from a large city.

Yours, &c.,

Woodilee Asylum, Lenzie, Sept., 1881.

JAMES R. DUNLOP, M.B.

THE "OPEN-DOOR" SYSTEM.

To the Editors of "THE JOURNAL OF MENTAL SCIENCE."

GENTLEMEN,—In the last number of the "Journal of Mental Science" there appeared a series of queries on the part of Dr. Needham, with reference to the "open-door" system in some of the Scotch Asylums.

In the Midlothian District Asylum for nearly two years past most of the doors have been "open," and the success attendant upon this system was such as to induce me last year to substitute locks with ordinary handles for the old spring locks on all the doors. It is now possible to enter the asylum by the front door, or by any of the others (with occasionally one or two exceptions), and to traverse the entire building without requiring to use a key.

I now wish to briefly record the results of my experience of open doors, and before doing so, I may mention that I found no difficulty in conducting the management of the institution on the new principle, without possessing the advantage of a lengthened asylum experience. During the last two years the average population of the institution has been about 240 patients, mostly paupers, and exhibiting fair samples of all varieties of mental disorder. The change to open doors involved no additional expense; the staff had not to be augmented, and the management of the patients continued very much the same as formerly, except in this particular, that the new system entailed on the part of the attendants a greater amount of vigilance, and more attention to their charge. The attendants, in fact, became to those requiring restraint what the lock and key were formerly, while to the orderly portion of the community there was afforded the boon of untrammelled ingress and egress. The unruly element forms but a very small percentage of the population of asylums, and it is a pity that the iniquities of some two or three should be visited upon all the inmates of a ward, the great majority of whom are quiet and well behaved. I believe that the very fact of the doors being unlocked has a sedative influence on many patients, and diminishes restlessness and the desire to escape. Out of a total of sixteen escapes for the past year, two only were attributable to open doors. It may be that seclusion in single rooms may have to be more frequently resorted to, but this is usually a benefit to the patient secluded, as well as a blessing to those who have got rid of a nuisance in their midst, and is surely better than the gigantic system of wholesale seclusion which obtains when the patients of entire wards are locked up, innocent and disorderly alike. One of the best proofs of the feasibility of the open door system is to be found in the fact that, in any asylum in which it has been tried, a reversal to the old system of locked doors is almost unknown; and certainly in my own case it is the last thing I should think of. This, of itself, is sufficient to dispose of many objections urged against the system by those who have not yet given it a trial.

These remarks are deductions from my own observations, and although I do not wish to generalize from perhaps insufficient data, yet I cannot help thinking that the use of lock and key is in many asylums carried to a needless extent.

ROBERT W. D. CAMERON, M.B.

Midlothian and Peebles District Asylum,
Rosewell, Edinburgh, Sept. 7th, 1881.

Obituary.

The members of our Association will learn with regret the news of the death of Dr. Frederick W. A. Skae, Inspector of Asylums, New Zealand, which took place at Wellington, on the 25th June, in the 39th year of his age.

Dr. Frederick Skae was the third son of the late Dr. David Skae, the well-known physician of the Royal Asylum at Edinburgh. He graduated at St. Andrews in 1862, and after acting for several years as assistant physician to his father at Morningside, he became, in 1869, Superintendent of the District Asylum for Stirling, Linlithgow, and Dumbartonshire, then in the course of erection. At Larbert he spent some happy years working with a board of honourable and sensible country gentlemen, pleased with his duties, assiduous in his work, devoted to his family, and beloved by all. On the resignation of Dr. J. Batty Tuke, he became Secretary for Scotland to the Medico-Psychological Association, and the general manner in which he filled that post increased his popularity.

In 1876 he was appointed Inspector of Asylums to the Government of New Zealand. On the formation of a more centralized government in that colony, a desire was felt that some competent man should be procured from Great Britain to give a proper organization to the scattered asylums or places of imprisonment for lunatics which had sprung into existence under the rough necessities of the provincial governments. For such a task Dr. Frederick Skae was well fitted. Accustomed to lunatics from childhood, knowing their feelings and their needs, well skilled in the treatment of insanity, and versed in all the details of the administration and construction of an asylum, possessed of great *savoir-faire*, a gentlemanly manner, and gifted with a powerful and colossal frame, Scotland could have sent no better man than Frederick Skae. He was thoroughly sensible, never in extremes, having the prime wisdom to know the relative importance of things, with a happy command of temper, and a keen sense of the ludicrous.

Dr. Skae's first Report on the State of the Asylums in the Colony was laid before the Parliament in 1877, and fully proved the necessity for reform. He showed that there were 783 lunatics in the asylums, but there was only an approach to fit accommodation for 270 of them. The treatment was bad and the situations of the buildings altogether unsuitable. But while the legislators of New Zealand seemed anxious that the condition of their lunatics should be amended, they were by no means prepared to vote the large sums needed to erect suitable buildings or to pay salaries sufficient to get medical superintendents. With a debt amounting to twenty-seven millions and a revenue above three millions to be paid from the taxation of a community of about 450,000 souls, the Government did not even venture to ask for the necessary sums, and it was thought sufficient to eke out the accommodation by making additions to the asylums already erected. Dr. Skae's excellent reports were used in the strife of parties, as weapons of offence against the

Colonial Governments ; and with a weak tenure of office his position was one of great difficulty and anxiety.

In the course of a debate upon the Lunatic Asylums in October, 1879, Dr. Pollen, a member of the Colonial Parliament, remarked "that the strain which had been put upon Dr. Skae by the difficulty of obtaining the attention of the Government, by the manifest deficiency of the machinery of which he had the control, and by the work which he was obliged to perform, was almost sufficient to drive any man out of his senses." Nevertheless many useful changes and considerable progress were made towards getting more accommodation, and improving what already existed, and the error of lay superintendents and visiting physicians with a divided authority has been exposed by deplorable experience.

Much remains yet to do ere the real needs of lunatics in New Zealand will be provided for ; but the Colony will get the benefit of the work which Dr. Skae has done ; and his successor may reap the fruit of his experience which he has left. We know that he found some who had the sense to appreciate his good qualities in the far distant island where he now lies. It pains us much to think that his race is so early run, and that we shall never see his manly form again. The immediate cause of death was erysipelas.

Appointments.

BOWES, J. I., M.R.C.S., to be Medical Superintendent of the Wilts County Asylum.

BROWN, M. L., M.B., to be Junior Medical Assistant to the Haywards Heath Asylum.

BENHAM, H. A., M.B., C.M., L.S.A., to be Assistant Medical Officer to the Royal Lunatic Asylum, Dundee.

CHRISTIE, J. W. S., L.R.C.P.Ed., L.R.C.S.Ed., to be Assistant Medical Officer to the Leavesden Asylum.

HUXTABLE, L. R., M.B., C.M.Ed., to be Assistant Medical Officer to the Border County Asylum, Melrose.

JONES, D. J., M.D.Ed., M.R.C.S., to be Senior Assistant Medical Officer to the Kent County Asylum, Barming Heath.

SHAPLEY, F., M.R.C.S., L.S.A., to be Assistant Medical Officer to the Glamorgan County Asylum, Bridgend.

SUFFERN, A. C., M.D., to be Assistant Medical Officer to the East Riding Asylum, Beverley.

WADE, A. L., M.D.Dub., L.R.C.S., to be Medical Superintendent of the Somerset and Bath Asylum, Wells.

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VOL. XXVII.

PART 1.—ORIGINAL ARTICLES.

Lunacy in England. (England's Irren-Wesen.) Address at the Opening of Section VIII (Mental Diseases) of the International Medical Congress. By C. LOCKHART ROBERTSON, M.D. Cantab., F.R.C.P., Lord Chancellor's Visitor in Lunacy, President of the Section.

GENTLEMEN,—In now opening the eighth section of this great International Medical Congress, and in offering to the alienists of Europe and America our cordial welcome to London, I must ask leave to explain to you that it is only by the accident of official position as senior physician to the Lord Chancellor, who, under the Royal prerogative and by statute, has in England the guardianship of all lunatics and persons of unsound mind, that I occupy to-day this presidential chair. But for the desire of the Executive Committee thus to recognise the paramount authority of the Lord Chancellor in our department of medicine, I cannot doubt that the place I now fill would have been allotted to our most distinguished English writer on lunacy, Dr. J. C. Bucknill, one of the vice-presidents of this Congress, whose writings and whose name are a household word in all the asylums where the English tongue is spoken. Called from my official position rather than from personal fitness to preside in this section, I may the more venture to ask at your hands a generous interpretation of my efforts, so to guide your deliberations here that they may advance the science and practice of this department of medicine in which we are all enrolled.

I think I shall best use this occasion by laying before you a brief statement of the present condition of the insane in England, and of the manner and method of their care and treatment. In the German tongue the word *Irren-Wesen* exactly expresses the subject of this address.

The number of the insane in England of whom we have official cognisance is about 71,000, being in the ratio of 27·9 per 10,000, or 1 in 350, of the population. Of these no less than 63,500 are paupers chargeable to the rates and maintained at the cost of the community. The remaining 7,600 are private patients, whose means vary from £50 to £50,000 a year, much the larger number being nearer £50, for insanity necessarily tends, by arresting the power of production, to the impoverishment of its subjects. Thus, of the total of the insane in England, 90 per cent. are paupers maintained at the public cost, and 10 per cent. only are kept by their own resources.

There has, since the passing of the Lunacy Act of 1845, been a great yearly increase in the registered numbers of the insane, an increase chiefly, if not solely, among the pauper class, which admits of satisfactory explanation, as I have elsewhere* endeavoured to show, without accepting the popular fallacy of an increase of insanity, a theory which, if carried to its logical conclusion, leads us to the result that as the registered lunatics in 1845 were as 1 to 800 of the population, while in 1880 they stand, as I have just stated, as 1 to 350, therefore lunacy in England has more than doubled during the last thirty years, which is a manifest fallacy. I only regret that my present limits preclude farther reference to this interesting problem.†

My first table exhibits the number of the insane in England, with their place of residence and their proportion to the population in the decenniums 1860, 1870, and 1880. This table shows that the total registered number of the insane has risen from 38,000 in 1860 to 71,000 in 1880, and the ratio to the population from 19·1 per 10,000 to 27·9. It is evident from my figures that this increase is mainly in the pauper class. The private patients in 1860 numbered 5,065; in 1880 they were 7,620, and their ratio to the population 2·5 and 2·9 respectively, an increase of ·4 only, as compared with the increase of 8·8 among the pauper lunatics, on each 10,000 of the population.

* *The Alleged Increase of Lunacy*, "Journal of Mental Science," April, 1869. *A Farther Note on the alleged Increase of Lunacy*, "Journal of Mental Science," January, 1871.

† In the Report of the Scotch Commissioners in Lunacy for 1880, this question of the apparent increase of insanity is ably discussed, and dealt with in a careful statistical inquiry. I can only here give their conclusion:—"We have frequently pointed out that the difference in these rates of increase is not necessarily due to an increasing amount of mental disease, but is probably due in a large measure to what is only an increasing readiness to place persons as lunatics in establishments."

TABLE I.

Showing the number of Lunatics in England and Wales in the several decenniums 1860, 1870, 1880, with their Place of Residence and their Proportion of the Population.

Where detained (Place of Residence).	1860.			1870.			1880.		
	Private	Pauper	Total	Private	Pauper	Total	Private	Pauper	Total
In Public Asylums ...	2,000	17,442	19,442	2,730	28,229	31,009	3,754	39,986	43,730
In Private Asylums	2,948	1,352	4,300	3,144	1,760	4,904	3,398	1,141	4,549
In Workhouses ...	None	8,219	8,219	None	11,358	11,358	None	16,464	16,464
In Private Dwellings	117	5,980	6,097	356	7,086	7,442	468	5,980	6,448
Totals ...	5,065	32,993	38,058	6,280	48,433	54,713	7,620	63,571	71,191
Ratio per 10,000 of the population }	2·54	16·58	19·12	2·79	21·52	24·31	2·99	24·95	27·94

TABLE II.

Showing the Distribution per cent. of all Lunatics in England and Wales and in Scotland in 1880 (January 1st).

	DISTRIBUTION PER CENT.					
	In England and Wales.			In Scotland.		
	Private.	Pauper.	Total.	Private.	Pauper.	Total.
In Public Asylums*...	5·0	56·5	61·5	14·6	61·0	75·6
In Private Asylums†	5·0	1·5	6·5	1·6	None	1·6
In Workhouses‡ ...	None	23·0	23·0	None	7·0	7·0
In Private Dwellings§	·5	8·5	9·0	1·1	14·7	15·8
Total ...	—	—	100	—	—	100

* Including County and District Asylums and Scotch Parochial Asylums, Lunatic Hospitals and Scotch Chartered Asylums, Naval, Military, and East India Asylums, Idiot Asylums, Broadmoor Criminal Asylum, and Perth Prison Wards.

† Including Provincial and Metropolitan Licensed Houses.

‡ Including the Metropolitan District Asylums.

§ Including 208 Chancery lunatics residing in the private houses of "the committee of the person."

Table I. gives the distribution per cent. of the 71,000 registered lunatics in England and Wales, and I have here contrasted the same with that of the 10,000 lunatics registered in Scotland. (*See previous page.*)

Table II. is interesting as contrasting the total distribution of lunacy in England with that of Scotland. In England 61·5 per cent. of the lunacy of the country is maintained in the public asylums. In Scotland it reaches 75·6 per cent., while, on the other hand, the proportion of patients in private asylums is 6·5 per cent. in England, as against 1·6 in Scotland. In England 9 per cent. only of all lunatics are placed for care in private dwellings; in Scotland the proportion rises to 15·8. In England we have 23 per cent. in workhouses; in Scotland there are only 7 per cent.

Table III. gives the relative distribution per cent. of private and pauper lunatics respectively in England and Wales, and in Scotland.

TABLE III.

Showing the Distribution per cent. on their several Numbers of the Private and Pauper Lunatics respectively in England and Wales, and in Scotland, in 1880.

Where Maintained.	DISTRIBUTION PER CENT.			
	In England and Wales.		In Scotland.	
	Private.	Pauper.	Private.	Pauper.
In Public Asylums	49·0	63·0	84·0	73·7
In Private Asylums	43·0	1·6	9·5	None
In Workhouses	None	26·0	None	8·5
In Private Dwellings	8·0	9·4	6·5	17·8
Total	100	100	100	100

Table III. brings strikingly before us the existing difference in the method of care and treatment of the insane in

the two kingdoms. In England 43 per cent. of the private patients are in private asylums, while in Scotland the proportion is 9·5 only. The public asylums, on the other hand, have 84 per cent. of the Scotch private patients under treatment, as against 49 in England. In England, owing to the traditional preference of the Court of Chancery for private dwellings for the care of its wards, we find the proportion of patients so placed stands as 8 to 6·5 in Scotland, while with pauper lunatics these figures are reversed, the proportion in England being 9·4, as contrasted with 17·8 in Scotland.

I. *Public Asylums.*

There are 43,700 patients in the public asylums of England, or 60·5 per cent. of the whole lunacy of the country. Of these 40,000 are pauper lunatics, and 3,700 are private patients. The former are maintained in the county and borough asylums; the latter are divided between these and the registered lunatic hospitals.

(a) *County and Borough Asylums.*—The county and borough asylums of England,* sixty in number, contain 40,000 beds, varying from 2,000 to 250. They have been built and are administered under the provisions of the Lunacy Act of 1845. The average cost per bed has been under £200; the weekly maintenance of each patient is 10s., to which must be added the interest on the cost of construction and the yearly repairs of the asylum, which are borne by the county rate, bringing the yearly cost for each pauper lunatic maintained in the county asylums to nearly £40.

The government of the English county asylums is entrusted by the Lunacy Act, 1845, to a committee of the justices of the peace, under the control of the Secretary of State for the Home Department. The administration is in the hands of the resident medical superintendent. A yearly inspection of the asylum is made by the Commissioners in Lunacy, and a

* A return was ordered by the House of Commons to be printed August 14, 1878, of the cost of construction of each of the county asylums, the number of beds, the annual and weekly maintenance rate, the percentage of recoveries, deaths, &c. Unfortunately it has been, as regards England, carelessly prepared, and no abstract or summary of its contents or averages are given. It is impossible to make out clearly in which asylums the yearly repairs are included in the total cost of construction, and in which they are omitted. The Quarter Sessions of Warwickshire have made no return at all! In contrast, in the same Parliamentary paper, stand the clear tables and summary relating to the public asylums of Scotland. From the English return we can only gather an approximate estimate of the cost of construction, amount of land, salaries, cures, &c., no average being given.

yearly medical and financial report is presented by the committee and medical superintendent to the Quarter Sessions, and published.

The proportion of cures (discharged recovered) in the county and borough asylums in the last decennium, 1870-80, was 40·28 per cent. on the admissions, and the mortality 10·59 on the mean population. In Scotland, during the same period, the recoveries were 41·6, and the deaths 8. The only private patients admissible under the statute are those bordering on pauperism, and whom the law requires, as to classification, diet, clothing, &c., to be treated as the paupers. Herein the English county asylums differ from those on the continent of Europe and in America, where alike, and I think most wisely, special and often excellent provision exists for the care and treatment of private patients. At the public asylums near Rouen, at Rome, at Munich, and at Utica, in the States, I have seen extremely good accommodation provided for private patients.

In Mr. Dillwyn's Lunacy Law Amendment Bill, 1881, which was read a second time on May 25, but has since been withdrawn for this session, there was a clause (section 4) enabling the visitors of county asylums to provide there suitable accommodation, by additional buildings or otherwise, for private patients. I regard this proposal as one of the most important reforms, since the Lunacy Act of 1845, in the treatment of the insane of the middle class, providing as it would for the small ratepayers, at a cost within their means, such care and treatment as they cannot obtain in the cheaper private asylums, where the accommodation and comfort are absolutely below that of the county asylums, not to refer to the superior acquirements of the medical superintendents of the latter.

I do not feel called upon from this chair (nor does time admit) to enforce and illustrate the now incontestable superiority of public asylums, even in a financial point, for the curative treatment of the insane poor as contrasted with the private licensed houses, to which, before the Act of 1845, they were farmed out by their respective parishes. "Our present business is to affirm that poor lunatics ought to be maintained at the public charge. I entertain myself a very decided opinion that none of any class should be received for profit; but all, I hope, will agree that paupers, at any rate, should not be the objects of financial speculation." These words, spoken by Lord Shaftesbury in the House of Commons

when he introduced the Lunacy Act of 1845 (the Magna Charta of the insane poor), settled this question once for all. Whose voice will speak similar words of comfort and healing to the insane of the upper and middle classes, and declare, with authority which shall no longer be questioned, "that all insane captives whose freedom would not be dangerous should be liberated, and those who remain be surrounded with every safeguard of disinterestedness, humanity, and public responsibility?"

In here recording the success which has attended the Act of 1845—a success that led my friend Dr. Paget, in his Harveian Oration, to call the site of one of our English county asylums "the most blessed manifestation of true civilization that the world can present"—I cannot refrain from adding a word of tribute to the memory of my revered friend John Conolly, whose work of freeing the insane from mechanical restraint, and of thereby founding our English school of psychological medicine, preceded the legislation promoted by the Earl of Shaftesbury, and ensured the success of these enactments.*

Dr. Conolly's four annual reports of the County Lunatic Asylum at Hanwell for 1839, '40, '41, '42, still form the

* "In June, 1839, Dr. Conolly was appointed resident physician at Hanwell. In September he had abolished all mechanical restraints. The experiment was a trying one, for this great asylum contained 800 patients. But the experiment was successful; and continued experience proved incontestably that in a well-ordered asylum the use even of the strait-waistcoat might be entirely discarded. Dr. Conolly went further than this. He maintained that such restraints are in all cases positively injurious; that their use is utterly inconsistent with a good system of treatment; and that, on the contrary, the absence of all such restraints is naturally and necessarily associated with treatment such as that of lunatics ought to be, one which substitutes mental for bodily control, and is governed in all its details by the purpose of preventing mental excitement, or of soothing it before it bursts out into violence. He urged this with feeling and persuasive eloquence, and gave in proof of it the results of his own experiment at Hanwell. For, from the time that all mechanical restraints were abolished, the occurrence of frantic behaviour among the lunatics became less and less frequent. Thus did the experiments of Charlesworth and Conolly confirm the principles of treatment inaugurated by Daquin and Pinel, and prove that the best guide to the treatment of lunatics is to be found in the dictates of an enlightened and refined benevolence. And so the progress of science, by way of experiment, has led men to rules of practice nearer and nearer to the teachings of Christianity. To my eyes a pauper lunatic asylum, such as may now be seen in our English counties, with its pleasant grounds, its airy and cleanly wards, its many comforts, and wise and kindly superintendence, provided for those whose lot it is to bear the double burden of poverty and mental derangement—I say this sight is to me the most blessed manifestation of true civilization that the world can present."—*The Harveian Oration*, 1866, by George E. Paget, M.D., Cantab., Regius Professor of Medicine in the University of Cambridge.

groundwork of our treatment of the insane poor in the English county asylums, while these asylums themselves—whose fame, I may be permitted to say, based as it is on the successful application of the English non-restraint system, has gone forth into the whole civilized world, and brought rescue to the most suffering and degraded of our race—stand throughout this fair land imperishable monuments of the statesman to whom they owe their origin, and of the physician who asserted the great principle on which the treatment within their walls is founded.

“The system as now established,” Dr. Conolly writes, “will form no unimportant chapter in the history of medicine in relation to disorders of the mind. It has been carried into practical effect in an intellectual and practical age, unostentatiously, gradually, and carefully, and is, I trust, destined to endure as long as science continues to be pursued with a love of truth and a regard for the welfare of man.”*

We have made arrangements whereby you will have the opportunity of visiting and inspecting two of the best of the English county asylums, that for Sussex at Haywards Heath, and for Surrey at Brookwood; the State Asylum for Criminal Lunatics at Broadmoor, as also the four great metropolitan asylums, with a joint population of 6,600 lunatics, at Hanwell, Colney Hatch, Banstead, and Wandsworth. There has since the Lunacy Act of 1845 been a steady increase in the number of pauper lunatics placed in the county asylums. In 1860 the proportion was 57 per cent., in 1870 it rose to 61 per cent., and in 1880 it was nearly 65 per cent. of their number. I think this continued increase is most injurious alike to the insane poor and to the due administration of the county asylums. The accumulation in such large numbers of harmless and incurable lunatics in these costly asylums is, moreover, a needless burden on the rates.

We may now, with an experience of thirty-five years, assert that the utmost limits within which the county asylum can benefit or is needed for the treatment of the insane poor is 50 per cent. of their number,† and that a further accumu-

* “The Treatment of the Insane without Mechanical Restraint,” by John Conolly, M.D. Edin., D.C.L. London: Smith, Elder, & Co. 1856.

† There is a unanimous concurrence of opinion on the part of the Lunacy officials and the Visiting Justices, that the grant from the Consolidated Fund of 4s. a week made by Lord Beaconsfield’s Government in 1874, for every pauper lunatic detained in the county asylums, has led to a needless increase in the

lation of lunatics there serves no practical purpose, and hence is an unjustifiable waste of public money. The workhouses contain 16,500 pauper lunatics, or 26 per cent. of their number. A recent statute facilitates the adaptation of wards in the county workhouses* for the reception of lunatics; and if these arrangements were properly carried out, I think another 14 per cent., or 40 per cent. of the incurable and harmless pauper lunatics and idiots, might be provided for in the workhouses. That this is no fancy estimate I may quote the parish of Brighton, long distinguished for its wise and liberal administration of the Poor-law, which has already 36 per cent. of its insane poor in the workhouse wards, and 55 per cent. only in the county asylum. The transfer of twenty chronic cases—no impossible feat—from Haywards Heath to the Brighton workhouse wards would at once bring the Brighton statistics up to my ideal standard for the distribution of pauper lunatics—viz., in county asylums, 50 per cent.; in workhouse wards, 40 per cent.; leaving 10 per cent. for care in private dwellings.

(b) *Lunatic Hospitals (Middle-class Public Asylums).*—Besides the county asylums for the insane poor, we have in England fifteen lunatic hospitals, including the idiot asylums at Earlswood and Lancaster, where the principle of hospital treatment followed in the county asylums is applied to the insane of the upper and middle class with the most satisfactory results.

The following table gives a list of these asylums, with the date of their foundation, their present accommodation (number of beds), and their average weekly cost of maintenance:—

admission there of aged lunatics and idiot children, who were and can with equal facility be kept in the workhouses. This grant has risen year by year, and in the estimates of 1881-82 is placed at £425,000. Instead of relieving the landed interest, as this ill-considered attempt to shift part of their burden on the fund-holders was intended, it has actually increased the county rate by the forced enlargements and extension of the county asylums. The editor of *The Times*, in 1874 and 1878, allowed me at some length to direct attention to this yearly increasing misdirection of the public funds. It is to be hoped that when the heavy local taxation of England is readjusted, this outlet of wasteful expenditure may not be overlooked.

* The success of the Metropolitan District Asylums at Leavesden and Caterham, which contain 4,000 chronic lunatics maintained at the rate of 7s. a week, shows how, even in so difficult a place as London, the treatment of chronic and harmless pauper lunatics in workhouse wards is to be accomplished, with a large saving to the ratepayers and a relief to the crowded wards of the county asylums, which are thus made available for the curative treatment of acute and recent cases.

TABLE IV.

The Registered Lunatic Hospitals (Middle-class Asylums) in England, with the Date of their Foundation, the Number of Beds, and the Average Weekly Cost of Maintenance in 1880.

Name and Site of Asylum (Registered Hospital).	Date of Founda- tion.	Number of Beds.	Average Weekly Cost.*
			£ s. d.
Bethlem Royal Hospital	1400	300	1 11 7
St. Luke's Hospital	1751	200	0 19 3
York Lunatic Hospital	1777	160	1 1 1
Friends' Retreat, York	1792	150	1 12 6
Wonford House, Exeter	1801	100	1 11 0
Lincoln Lunatic Hospital	1820	60	1 8 2
Bethel Hospital, Norwich	1825	70	0 15 2
Warneford Asylum, Oxford	1826	70	1 2 7
St. Andrew's Hospital, Northampton	1836	300	1 10 1
Cheadle Asylum, Manchester	1849	180	2 2 0
The Coppice, Nottingham	1859	70	1 10 4
Coton Hill, Stafford	1854	150	1 12 10
Barnwood House, Gloucester	1860	110	1 14 3
Earlswood Idiot Asylum	1847	576	0 18 2
Albert Idiot Asylum, Lancaster	1864	350	0 14 0

These asylums have nearly 3,000 beds, and the average weekly cost of maintenance is £1 10s., or, including the fabric account, £1 15s.

There are 7,828 private lunatics registered in England, who are thus distributed :—

In registered hospitals	2,702 or 36 per cent.	} In public asylums 49 p.c.
In county asylums	484 or 6 „	
In state asylums	558 or 7 „	
In private asylums	3,408 or 43 „	
In private dwellings	676 or 8 „	

The existing lunatic hospitals, or middle-class public asylums, thus already receive 36 per cent. of all the private patients. The advocates of this method of treatment of the insane, as opposed to the private asylum system, may now fairly say that by thus providing for the care and treatment of 36 per cent. of the private lunatics they have demonstrated the practicability of this method as applicable to the other 43 per cent. now in private asylums.

They can also appeal to the official statistics to show their

* The fabric charges are not included in these figures. Another 5s. a week must be added to complete this estimated weekly cost of maintenance.

superiority as regards results over the private asylums. In the last decennium, 1870-80, the average recoveries per cent. on the admissions in the registered hospitals was 46·84 ; in the metropolitan private asylums it was 30·5 ; and in the provincial private asylums 34·7. The mean annual mortality during the same period was in the registered hospitals 8·12 ; in the metropolitan private asylums it rose to 11·01 ; and in the provincial private asylums it was 8·81. They may, moreover, point to Scotland and say that while in England 49 per cent. of the private patients only are provided for in public asylums, 84 per cent. are so cared for in Scotland. What has been accomplished in Scotland may surely be done in England. And certainly, as their strong and final argument, they may challenge a comparison of these asylums, conducted at half the cost, with the best of the private asylums in England. We have made arrangements for your visiting Bethlem* and St. Luke's in London, and also the middle-class asylum, St. Andrew's Hospital, Northampton. I should very much like you to see St. Andrew's Hospital, which now contains 300 private patients of the upper and middle classes, from whose payments it derives a revenue of £40,000 a year, of which £10,000 was saved last year for further extensions. It would be difficult to overpraise the power of organisation which has enabled Mr. Bayley, the medical superintendent, to achieve this great result in the last ten years only. I can from frequent visitation speak of the order and comfort which reign throughout this asylum.

Mr. Dillwyn's Select Committee, in their report (March 28, 1878), suggested "that legislative facilities should be afforded by enlargement of the powers of the magistrates or otherwise for the extension of the public asylum system for private patients," and in his Lunacy Law Amendment Bill, 1881, read a second time in May, Section 1 enables the justices to provide asylums for the separate use of private lunatics in like manner as the county pauper asylums were built. There can be no doubt, after the experience I have just related of St. Andrew's Hospital, Northampton, that, especially in the populous Home Counties, where no public provision for private lunatics exists, several such asylums, with 300 beds, might be built on the credit of the rates, and would in 30 years repay the capital and interest sunk out of

* In the "Journal of Mental Science" for July, 1876, there is a very interesting sketch of the History of Bethlem Hospital since 1247, by Dr. Hack Tuke.

the profits, and without, therefore, costing the ratepayers one penny. This clause alone would have made of Mr. Dillwyn's Bill a great gift to the insane of the upper and middle class.* I cannot but regret that so valuable a measure had to be withdrawn from want of time. It is already a well-worn complaint that home legislation is in England sadly impeded by the weary Irish agitation and debates.

Another method of providing public accommodation for private patients was laid by me before Mr. Dillwyn's Select Committee, in a "Memorandum on the Establishment of three State Asylums for Chancery Lunatics," signed by Dr. Bucknill, Dr. Crichton Browne, and myself. The insane wards of the Court of Chancery pay upwards of £100,000 a year for care and treatment in private asylums. Certainly no loss could be incurred by the Treasury in advancing sums to build these asylums, where the yearly profits would, as at St. Andrew's Hospital, ensure the regular repayment of capital and interest. As the Court of Chancery controls in every detail the expenditure of the income of its insane wards, it is not an unreasonable demand to require that Court to provide fit public asylum accommodation, and such as the visitors deem necessary, for the Chancery patients now placed in private asylums, in the selection of which their official visitors have no voice, and over the conduct and management of which they exercise no control.

II. *Private Asylums.*

There are 3,400, or 43 per cent., of the private patients in England confined in private asylums, of whom 1,850, or 54 per cent., are in the thirty-five metropolitan licensed houses which are under the sole control and direction of the Commissioners in Lunacy, who diligently visit them six times a year. The remaining 1,550, or 46 per cent., are in the sixty-one provincial licensed houses which are under the jurisdiction of the justices in quarter sessions, but are inspected twice a year by the Lunacy Commissioners. I cannot—even did I so desire—avoid, in an address like the present, stating to you my opinion of this method of treatment of the insane. The tenor of my remarks, when referring to the extension of the lunatic hospitals (middle-class asylums), has already shown the direction towards which my opinions and feelings tend.

* I brought this whole subject before the Brighton Medical Society in 1862, in a paper on "The Want of a Middle-class Asylum in Sussex," subsequently inserted in the "Journal of Mental Science" for January, 1863.

John Stuart Mill, the strenuous advocate of freedom of contract, nevertheless, in his "Political Economy," in treating of this subject, observes that "insane persons should everywhere be regarded as proper objects of the care of the State," and, in quoting this authority, I must add, from long personal observation, my opinion that it would be for the interests of the insane of the upper and middle class to be treated as are the paupers in public asylums, where no questions of self-interest can arise, and where the physician's remuneration is a fixed salary, and not the difference between the payments made by his patients for board and lodging and the sums he may expend on their maintenance. "Is there not," writes Dr. Maudsley, "sufficient reason to believe that proper medical supervision and proper medical treatment might be equally well, if not better secured by dissociating the medical element entirely from all questions of profit and loss, and allowing it the unfettered exercise of its healing function? Eminent and accomplished physicians would then engage in this branch of practice who now avoid it because it involves so many disagreeable necessities."

Probably all not directly interested in this system, and many who, to their own regret, are so, will concur that, if the work had to be begun anew, the idea of licensed private asylums for the treatment of the insane of the upper and middle class would be, by every authority in the State, as definitely condemned as was in 1845 the practice of farming out the insane poor to lay speculators in lunacy. It is, however, a different matter dealing with an established system, and I am not of those who call for the suppression of all private asylums. The friends of many patients in England distinctly prefer them to public asylums, and some patients, who have had experience of both, contrast the personal consideration and study of their little wants which they receive in private asylums with the discipline and drill of the public institutions. I see no reason why private asylums should not continue to exist side by side with the public middle-class asylums. Time and competition will show which system shall ultimately gain the approval of the public. I am glad to find this opinion supported by Dr. Arthur Mitchell, Commissioner in Lunacy for Scotland, in his evidence before the Parliamentary Committee of 1877.

"I think," he said, "there should be no legislation tending to the suppression of private asylums. I would let the principles of free trade settle the matter. If the public have

confidence in private asylums, and encourage them, I would let private asylums exist. I would give them no privileges, and would simply take care that the inspection and control over them are sufficient."

The verdict of public opinion in Scotland has been definitely against the private asylum system. While in England 43 per cent. of the private patients are confined in private asylums, the proportion in Scotland falls to 9.5.

If private asylums are to continue, there should be entire freedom of trade in the business. The Lunacy Commissioners have for many years placed endless impediments in the way of licensing new and small asylums in the metropolitan district. I entirely differ from this policy, and I think that small asylums for four or six patients, licensed to medical men, would tend to lessen the existing evils of the larger private asylums. The monopoly which the Commissioners have established in the metropolitan district has certainly not raised the asylums there to a higher standard than those of the provinces, where free trade in lunacy prevails. I am tempted to say that it has had the contrary effect.

III. *The Insane in Private Dwellings.*

Further reform in the treatment of the insane is not merely a question of whether and how they shall be detained in public or private asylums, but rather whether and when they should be placed in asylums at all, and when and how they shall be liberated from their imprisonment and restored to the freedom of private life. This is the reform in lunacy treatment which is beginning at last to take hold on the public mind in England, and has received a new impulse by the recent publication of an essay by Dr. Bucknill "*On the Care of the Insane and their Legal Control.*"*

It is more than twenty years ago since the question of the needless sequestration of the insane was first raised in England by my friend, Baron Jaromir Mundy, of Moravia. He spoke then to dull and heedless ears. I remember well I thought him an amiable enthusiast, and I said there was no fit or proper treatment for the insane to be found out of the walls of an asylum. I have since learnt a wiser experience. Well did he say, on leaving us, *Arbores serit diligens agricola quarum aspiciet baccam ipse nunquam*. I am very glad to have

* Macmillan and Co., second edition. London, 1880.

this opportunity of doing honour to the zeal and far-seeing wisdom of the first preacher of this new crusade ; would he were here with us to-day to accept my formal adherence to his cause.

There is, I believe, for a large number of the incurable insane, a better lot in store than to drag on their weary days in asylum confinement :—

The staring eye glazed o'er with sapless days,
The slow mechanic paces to and fro,
The set grey life and apathetic end.

In my evidence before Mr. Dillwyn's Select Committee in 1877 I was examined at some length on this question, and I stated that, but for my experience as Lord Chancellor's Visitor, and if I had not personally watched their cases, I could never have believed that patients who were such confirmed lunatics could be treated in private families in the way that Chancery lunatics are. I also said that one-third of the Chancery patients were already so treated out of asylums, and I added that I was of opinion that one-third of the present inmates of the private asylums might be placed in family treatment with safety. In support of this opinion I put in this table :—

TABLE V.

Showing the Proportion per cent. in Asylums and in Private Dwellings of the Chancery Lunatics and of the Private Patients (Lunatics not Paupers) under the Commissioners in Lunacy in England and Wales and in Scotland.

	PROPORTION PER CENT.	
	In Lunatic Asylums.	Under Home Treatment in Private Dwellings.
Chancery Lunatics	65·4	34·6
English Private Lunatics	94·1	5·9
Scotch Private Lunatics.....	93·8	6·1

This table deserves your attention. If 34·6 per cent. of the Chancery lunatics are successfully treated in private dwellings, while only 65·4 per cent. are in asylums, it is evident that of the private patients under the Lunacy Commissioners, of whom 94 per cent. are in asylums, some 30 per cent. are

there needlessly, and hence wrongly confined. I see instances of such cases every visit I pay to the private asylums.

Another convert to his cause, made by Baron Mundy, is one of the distinguished vice-presidents of this section, Dr. Henry Maudsley, who, in 1867, in the first edition of his work on the "*Physiology and Pathology of the Mind*," strenuously condemns the indiscriminate sequestration of the insane in asylums, observing:—"The principle which guides the present practice is, that an insane person, by the simple warrant of his insanity, should be shut up in an asylum, the exceptions being made of particular cases. This I hold to be an erroneous principle. The true principle to guide our practice should be this: that no one, sane or insane, should ever be entirely deprived of his liberty, unless for his own protection, or for the protection of society."

Dr. Maudsley (to strengthen his argument) pointed to the condition of the numerous Chancery patients in England who are living in private houses. "I have," he writes, "the best authority for saying that their condition is eminently satisfactory, and such as it is impossible it could be in the best asylum," and he concluded an elaborate defence of this method of cure with this remark: "I cannot but think that future progress in the improvement of the treatment of the insane lies in the direction of lessening the sequestration, and increasing the liberty of them. Many chronic insane, incurable and harmless, will be allowed to spend the remaining days of their sorrowful pilgrimage in private families, having the comforts of family life, and the priceless blessing of the utmost freedom that is compatible with their proper care."

In his recent essay on "*The Care of the Insane*," Dr. Bucknill has a chapter entitled "*Household Harmony*"—

After many moody thoughts,
At last, by notes of household harmony,
They quite forget their loss of liberty.

I give you therefrom his final and weighty conclusions in his own words:—"It is not merely the happy change which takes place in confirmed lunatics when they are judiciously removed from the dreary detention of the asylum into domestic life; it is the efficiency of the domestic treatment of lunacy during the whole course of the disease which constitutes its greatest value, and of this the Author's fullest and latest experience has convinced him that the curative influences of asylums have been vastly overrated, and that those of isolated treatment in domestic care have been greatly undervalued."

What I have hitherto said under this section applies to the home treatment of private patients. The treatment of pauper lunatics in private dwellings is another part of this question, and one in which important financial results are involved. The system takes its origin from Gheel, and has been adopted in Scotland with great success. No less than 14·7 per cent. of the insane poor in Scotland are placed in private dwellings, under the official inspection of the Lunacy Board. Dr. Arthur Mitchell's evidence before Mr. Dillwyn's Select Committee, and the several annual reports of the Scotch Commissioners give details of this method of treatment, which my limits only allow me now to refer you to. Financially the cost of this treatment does not reach 1s. a day; in the county asylums (including the cost of the fabric) it is not less than 2s., a difference of 100 per cent. in expenditure.

With regard to England, 6,000 pauper lunatics, or 8·5 per cent. of their number, are registered as living with their relatives, or boarded in private dwellings, under the authority of the Boards of Guardians, whose medical officers visit the patients every quarter, and make returns to the Visitors of the county asylums, to the Lunacy Commissioners, and to the Local Government Board. None of these authorities, however, take much notice of the returns, and little or nothing is known of the condition, care, or treatment of these 6,000 pauper lunatics. Any further amendment of the Lunacy Law should certainly, in some way, bring them within the cognisance and inspection of the Lunacy Commissioners, as is done in Scotland.

A successful effort further to extend this system in England is related by Dr. S. W. D. Williams, the Medical Superintendent of the Sussex County Asylum, Haywards Heath, in his evidence before Mr. Dillwyn's Select Committee, and also in a paper, "Our Overcrowded Lunatic Asylums," published by him in the "Journal of Mental Science" for January, 1872. My limits compel me to be satisfied with this brief reference to the important questions included in this third section of my address, "The Insane in Private Dwellings."

IV. *The English Lunacy Law.*

Lastly, I would say a few words on the Lunacy Law of England, which, setting aside the special statutes, dating from King Edward II., regulating the proceedings in Chan-

cery, are the result of the legislation of 1845, and consist chiefly of Acts amending other Acts. They form a large volume, which has been carefully edited by Mr. Fry.* A Bill for the general consolidation and amendment of these several statutes is an urgent need. The Government of Lord Beaconsfield announced, in Her Majesty's speech from the throne on the opening of Parliament in February, 1880, that such a measure was in preparation; and although the political necessities of the Irish question have this year unfortunately absorbed all the energies and time of the Government, we have assurance, in the extreme solicitude which the Lord Chancellor on all occasions so markedly shows for the welfare of the insane, that the Government will be prepared to give the question of Lunacy Law Reform their early and careful attention. I am disposed to think that, previous to such legislation, a Royal Commission should be issued to investigate and report on the working in detail of the Lunacy Law, and to make suggestions for its consolidation and amendment.

It is exactly twenty-one years since a Parliamentary Committee reported to the House "On the Operation of the Acts of Parliament and Regulations for the Care and Treatment of Lunatics and their Property." Many changes have passed over this department of medicine since the date of that report, and the temporary amendments of The Lunacy Law of 1845, which resulted therefrom, have almost served their purpose. The chief of these enactments, "The Lunacy Acts Amendment Act, 1862," passed the following year, and embodied the various suggestions of the Lunacy Commissioners, based on their experience of the working of the Act of 1845, and from an official point of view was a valuable contribution to the Lunacy Law, but it failed to give effect to many of the recommendations of the Select Committee of 1860. In the same year passed "The Lunacy Regulation Act, 1862," which led to considerable amendment of the proceedings in Chancery. The important requisite, however, of a cheap and speedy method of placing the property of lunatics under the guardianship of the Lord Chancellor has yet to be attained. One of the most experi-

* "The Lunacy Acts: containing the statutes relating to Private Lunatics, Pauper Lunatics, Criminal Lunatics, Commissioners of Lunacy, Public and Private Asylums, and the Commissioners in Lunacy; with an Introductory Commentary, &c." By Danby P. Fry, of Lincoln's Inn, Barrister-at-Law. Second edition. London, 1877.

enced officials in Chancery, Master Barlow, in his evidence before Mr. Dillwyn's Committee, in 1877, said:—"I am a great advocate for a great reform in Lunacy (Chancery) proceedings; I would facilitate the business of the procedure in the office, and shorten it in such a way as to reduce the costs."

After the evidence given by Dr. Arthur Mitchell before Mr. Dillwyn's Select Committee of 1877, it is evident that in the consolidation and amendment of the English Lunacy Laws, the Scottish Lunacy Law and practice must be carefully considered. It is in Scotland alone that the whole lunacy of the kingdom is under the control and cognisance of the Lunacy Board.*

Again, the relation of the Lunacy Commissioners to the county asylums under the County Financial Boards (whose advent is nigh at hand) is a difficult question, the final solution of which will influence for good or evil the future of these asylums. Herein also falls the question I have before referred to, of the annual Parliamentary grant for pauper lunatics maintained in asylums, and reaching now to half a million a year. Is the central government to check, through the distribution of this grant, the county boards; or are they to retain the same authority over the county asylums as is now exercised by the justices in quarter sessions? The whole future efficiency of the English county asylums depends upon the right adjustment of the relative control given to the local authorities through the new county boards, and to the central government through the Commissioners in Lunacy.

There is also for consideration, as in contrast with the Lunacy Laws of Scotland, the divided jurisdiction of the Local Government Board and the Commissioners in Lunacy over pauper lunatics in workhouses, of whom 17,000, or 26 per cent. of their number, are there and in the metropolitan district asylums under the control of the Local Government Board with the merest shadow of inspection by the Lunacy Commissioners. Again, to what extent is the credit of the ratepayers to be used in the establishment of public asylums for private patients? I have already said how much I desire to see the public asylum system, as now existing in the registered lunatic hospitals, extended, more particularly in

* I may be pardoned if I venture here to refer to the annual reports of the Commissioners in Lunacy for Scotland, as containing an amount of well-digested statistical information regarding the lunacy of the kingdom, which we search for in vain elsewhere.

the Home Counties, by this method. Then the wide question of official asylum inspection. Is the present amount of it enough, and the method of it sufficient for the needs and protection of the insane, or does the Lunacy Commission require both extension and remodelling?

These are but a few examples of the difficulties besetting the question before us of the consolidation and amendment of the English Lunacy Law, and which lead me to the opinion that the whole subject, now ripe for solution, requires skilful and scientific sifting by a Royal Commission, previous to any consolidating and amending Act being laid before Parliament. I am glad to have this occasion to express my personal confidence in the ability, industry, and integrity with which the existing Lunacy Law is administered by the Commissioners. If I were disposed to criticise their policy, I might say that they trust too much to their one remedial agent, the extension of the county asylums, for meeting all the requirements and exigencies of the insane poor, while as regards the private asylums, with 54 per cent. of the private asylum population under their sole control in the metropolitan district, that they have from the first, since 1845, been content to enforce the remedying of immediate shortcomings, rather than endeavoured to place before the proprietors any standard of excellence to which they shall attain.

In concluding my remarks on the last section of my subject—the Lunacy Law of England—I would say that no mere amending Act like that of 1862, embodying simply the further suggestions of the Lunacy Commissioners, will satisfy the requirements of the medical profession or of the public. In the evidence taken before Mr. Dillwyn's Select Committee in 1877 will be found many suggestions for the further amendment of the Lunacy Law of an important character, one or two of which Mr. Dillwyn embodied in his Lunacy Law Amendment Bill of this year, which, as I have already said, has been withdrawn. It is impossible for any private member of Parliament, actuated though he be by an earnest desire to remedy grave evils, to deal with so wide and complicated a question as the consolidation and amendment of the English Lunacy Law. No one is more fully aware of this impossibility than is Mr. Dillwyn, and no member of the House is prepared more heartily to support the Government in passing a wide and comprehensive measure of Lunacy Law Reform.

I fear, gentlemen, that I have exceeded the limits of an

opening address. Yet the wide subject which I selected—Lunacy in England (*England's Irren-Wesen*)—did not admit of shorter treatment or of further compression. It is, after all, but a bare outline that I have to-day been able to sketch of the present condition of the insane in England, and the manner and method of their care and treatment. I may claim to have endeavoured to give you a truthful picture of our present state, and I certainly have not desired to hide our many shortcomings from you. Indeed, my object in selecting this subject for my address is the hope, that the position I fill to-day in this great International Medical Congress may gain for my ideas on lunacy reform, which I have thus brought before this section, a practical recognition such as I could not, under other circumstances, expect my humble opinions to command. If such a result should follow, I truly believe that the use I have made of this great opportunity may be the means of extending to the insane of all classes in England that further measure of protection and liberty which the experience of the past working in the County Asylums of the Lunacy Act of 1845, on the lines of the non-restraint system, has now shown to be alike practicable and safe.

Hallucinations in General Paralysis of the Insane, especially in Relation to the Localization of Cerebral Functions. By WM. JULIUS MICKLE, M.D., M.R.C.P., London.

(Continued from p. 383, Oct., 1881.)

In the following cases, visual or auditory hallucinations, or both, were more or less vivid and persistent. First the visual, and then the auditory, will be considered, together with the lesions of the respective supposed cortical centres.

A. *The so-called cortical visual centre. Angular, and (in less degree) supra-marginal convolution, or lobule.*

CASE I. In one case where visual hallucinations, as well as auditory, had been very marked, adhesions and decided morbid changes affected all the gyri of the superior and external surfaces of the frontal and parietal lobes. Especially was this marked in front, where the entire outer layers of the grey matter stripped off, but every convolution (including the angular and supra-marginal) of the area just specified was extensively involved and further detail is unnecessary. The internal surface of the cerebral hemispheres was also

much affected. The same change also affected the prominences of the first and second temporo-sphenoidal gyri to a moderate extent and degree, but tapered off here and spared the third gyrus. The occipital lobe only showed the adhesion-changes, and to a slight extent, in the portions of the first and second occipital gyri which border upon the parietal lobe, or assist in forming the annectent convolutions. The grey matter of the uncinate gyri also separated along with the meninges, and a few scattered points of adhesion were found elsewhere on the inferior surface of the brain. The grey matter was hyperæmic, mottled by sections of the contents of visible dilated vessels, slightly softened, of a deep grey and somewhat slaty hue, of fair depth, and of imperfectly marked stratification.

The white substance of the brain was somewhat softened, and was mottled; its puncta sanguinea were numerous. All the above appearances were symmetrical in the two hemispheres. Fornix softened. The left corpus striatum and optic thalamus seemed to be slightly shrunken, but there were no special morbid appearances on section. The pons Varolii and medulla oblongata were lessened in consistence, hyperæmic, and their meninges hypervascular. The cerebellum was hyperæmic and slightly softened.

Although the very widely spread principal changes *did* include the so-called cortical visual centre, but little can be concluded from this.

CASE II. In another case, the cortex of the *right* cerebral hemisphere had undergone its most marked changes in the frontal lobe, especially at the posterior and upper part of its convexity. In this hemisphere the adhesions affected only the anterior portion of the upper surface of the first and second frontal convolutions, more particularly the latter. On this side the grey matter was of a deep pinkish hue, especially in the frontal region, and showed numerous visible vessels. In the upper parietal convolutions the colour was much paler. The colour was again deepened in the occipital region. The grey cortex was of ordinary depth, and was of increased consistence throughout this hemisphere, and particularly so in its superficial layers, and in the gyri at the vertex, and in the frontal lobe. The strata were indistinct. The grey cortex of the inferior surface was firmer than usual in the anterior region, but less so in the middle and posterior. The white matter was firm; and was very hyperæmic, especially near the base of the brain. The corpus striatum and optic thalamus were plump, firm, hyperæmic, and presented numerous large puncta cruenta.

The *left* hemisphere was more diseased, and weighed an ounce less, than the right. The grey cortex of the convexity of its frontal lobe was atrophied; so was that of the parietal, but to a much less extent and degree, though, on the whole, it appeared, under the microscope, to be nearly as much diseased as that of the frontal. Adhesion was almost limited, on this side, to the upper part of the tip of the first frontal convolution. The convolutions were wasted and sunken over

an area of about half an inch square, immediately before and behind the external parieto-occipital fissure. The grey cortical substance was paler on this than on the right side; its layers were not nearly so thick as those of the right in the frontal lobe, but were of about the same depth in the posterior part of the parietal, and in the occipital lobe. The depth of the grey matter gradually diminished as one passed forward from the parietal lobe. The grey matter was unusually firm in all the upper regions of the cerebrum, especially in the frontal lobe, where the colour was ordinary, with a faint slaty tint in the inner layers. The vessels were visible to the naked eye in the grey matter, on this side, and there was a slight pinkish hue only in the posterior of the parietal, and in the occipital, convolutions. Elsewhere the colour was ordinary. Microscopically, the nerve-cells were more diseased in the left than in the right frontal region. The white matter was much the same as on the right side. The corpus striatum and optic thalamus were much paler than on the right side. Still they were firm and hyperæmic.

The grey cortical matter at the base of the cerebrum was thin, firm, and of ordinary hue in the orbital region, but thicker, softer, and more vascular over the base of the temporo-sphenoidal and occipital lobes, and at the back part of the internal surface.

The medulla oblongata was very firm, and the tissues beneath the floor of the fourth ventricle were pinkish.

The angular and supra-marginal gyri, therefore, were free from the adhesive change, and although they were not among the gyri microscopically examined, yet the gross morbid changes were comparatively less in their region than in many other parts. It is true, there was some atrophy near to the left angular gyrus, but it was mainly confined to the first external annectent gyrus. Contiguous to the angular gyrus, the change was not observed to invade it.

In this case there is no obvious support to the physiological doctrine now under debate.

CASE III. In another case, where both visual and auditory hallucinations were most vivid, and were prominent clinical features, the distribution of the adhesive change gives some support to the assumed localization of the so-called cortical visual and auditory centres; for while the postero-parietal lobule and the upper border of the angular gyrus escaped, yet the first temporo-sphenoidal, the supra-marginal, and the greater part of the angular gyrus, suffered decidedly from the adhesive change.

More exactly: the adhesion was more marked in the *right* cerebral hemisphere than in the left; in the former it was most marked over the lower half of the parietal lobe, the lateral surface of the first and second gyri of the temporo-sphenoidal lobe, the lower part of the right ascending frontal gyrus, the third frontal gyrus; and to a less marked degree and extent, over the anterior and posterior ends of the middle frontal gyrus, leaving an intermediate oasis unaffected; and over the whole of

the superior surface of the first frontal gyrus. It was observed slightly on the orbital surface, and on the internal surface; but the occipital lobe escaped, with the exception of the anterior end of the third occipital gyrus. Thus a large band on the posterior two-thirds of the upper portion of the right hemisphere escaped the adhesive change; the breadth of this oasis was from two to three inches at different points, and it was limited anteriorly by the first frontal gyrus.

The adhesive change was much less advanced in the *left* hemisphere, but had a somewhat similar distribution, except that the superior surface of the first and second frontal gyri escaped, the orbital surface, however, being as much affected here as on the right side. The temporo-sphenoidal lobe, moreover, was equally diseased on this side, and the third frontal gyrus was considerably implicated.

Numerous vessels were apparent in the cerebral grey cortical matter, which had a faint lilac hue, and was atrophied in the anterior regions. The whole brain was of diminished consistence. The white matter was hyperæmic and pasty. The fornix and grey commissure were soft. The corpora striata were of a dull lilac, the optic thalami of a mottled lilac, hue. Right hemisphere 2 ozs. less in weight than left; cerebellum slightly hyperæmic, especially on the right side near the median line; a slight pia-matral hæmorrhage beneath the posterior part of its inferior vermiform process. Pons and med. oblong. hyperæmic. Ependyma of fourth ventricle granulated. Under microscope; numerous nucleated cells and nuclei; leucocytes; deposit of blood pigment; and some granular nerve-cells; in cerebral cortex.

CASE IV. Auditory hallucinations occurred at an early stage; and, later, vivid visual hallucinations. The case afforded no support to the doctrine of localization now in question.

The inner meninges were rather pale, were opaque, thickened, œdematous, and non-adherent to the brain. The serous infiltration of the meninges was most marked, and associated with decided wasting of the convolutions, close to the great longitudinal fissure, immediately before and behind the ascending gyri on each side. The grey cortex of the cerebrum was of fair thickness, somewhat mottled by blood-containing vessels; its inner layers were pale whitish-yellow; its outer greyish; at the base it was pale. Over the superior and external surfaces of frontal and parietal lobes it was firm, this condition gradually shading off to nearly the normal consistence at the occipital lobe and at the base. Lateral ventricles rather large, fornix firm, basal ganglia rather pale. No special changes observed in 7th nerves, or medulla oblongata, or labyrinth, or tympanum. Spinal cord slightly softened. Microscopical. Right frontal cortex: many small round or oval cells containing several dark molecules; nuclei of vascular walls increased in number; increased number of Deiter's cells; slight atrophy and degeneration of some of the nerve-cells, several of which were partly surrounded with vacuoles. Ascending gyri, much the same. Spinal cord; degeneration of some of the multipolar cells.

CASE V. Visual hallucinations (also auditory).

Arachnoid and pia-mater much thickened and opaque, even over the base of the brain ; also anæmic and œdematous. Adhesion and decortication excessive, and not only from the prominences of the convolutions, but also, to some extent, from the declivities of the anfractuositities. On the *left* cerebral hemisphere this cerebro-meningeal adhesion was almost universal, affecting *all* its surfaces ; and especially the parietal lobe and part of the frontal ; being almost as much in degree, also, at the tip of the frontal ; somewhat less over the occipital ; still less over the temporo-sphenoidal, of which lobe the inferior surface was affected more than the external. In the *right* hemisphere was a similar condition and distribution of adhesion, but less marked. Grey cortical substance generally pale, slightly reddish in parts, somewhat wasted, of ordinary consistence. Lateral ventricles dilated, particularly the left one ; left corpus striatum slightly shrunken ; basal ganglia rather pale. White cerebral substance pale, slightly firmish. Pale and somewhat softened cerebellum.

Thus the cortical lesion was too extensive for purposes of exact localization.

CASE VI. Vivid visual hallucinations were present here, and the supposed visual cortical centres suffered very considerably.

The meninges were thickened, opaque, hyperæmic. Marked adhesion and decortication of the summits of certain of the cerebral gyri existed. On the *right* cerebral hemisphere this occurred, especially over the entire upper surface of the first and second frontal gyri, and over that part of the third adjoining the vertical branch of the Sylvian fissure ; scattered points of the same were found on both ascending convolutions ; the supra-marginal gyrus (lobule) suffered severely, the angular rather less, the postero-parietal lobule slightly, the first occipital very slightly ; the temporo-sphenoidal convolutions were considerably affected along their whole external surface ; the under surface of the temporo-sphenoidal lobe suffered somewhat ; the back part of the orbital surface considerably, as also the internal cerebral surface bordering upon the periphery of the great longitudinal fissure.

On the *left* hemisphere were well-marked, extensive, adhesions over nearly the whole area of the summits of the three tiers of the frontal gyri, the lower two-thirds of the ascending frontal, and the supra-marginal. Moderate adhesions existed over the angular gyrus, the front part of the postero-parietal lobule, the whole external and inferior surfaces of the temporo-sphenoidal lobe, also on the orbital surface. There were slight adhesions over the anterior part of the occipital lobe. The ascending parietal escaped this change, except in its lower half-inch.

The grey cortex was wasted in the frontal and parietal regions ; was rather pale at the base ; the surface of its erosions was reddish. Brain, generally, hyperæmic ; also soft and flabby, except the anterior portions of the white substance. Fornix diffuent ; basal ganglia somewhat soft, hyperæmic ; cerebellum rather diminished in consistence ;

some meningeal adhesions on its surface ; pons Varolii and medulla oblongata rather soft and vascular ; ependymia of fourth ventricle thick, and of a gelatinous, sanded appearance. Chronic spinal meningitis, especially over posterior aspect ; grey degeneration of posterior columns of the cord.

CASE VII. Visual hallucinations (auditory less marked). Here the supra-marginal gyri were considerably affected, the angular only slightly, and the case harmonises very fairly with the theory.

The meningeal opacity and thickening were more marked than elsewhere over the posterior part of the frontal and the anterior part of the parietal lobe. The adhesion and decortication were mainly at the vertex of the cerebrum. In the *right* cerebral hemisphere adhesion was well-marked on the supra-marginal gyrus, very slight on the angular, moderate on the anterior part of the postero-parietal lobule and on the corresponding part of the internal surface of the hemisphere ; very slight on the upper and lower extremities of both ascending gyri, well marked over most of the upper surface of the first and second frontal ; very slight over the posterior portion of the third frontal ; well marked over gyrus marginalis ; almost absent from the tip of the frontal lobe ; non-existent on the temporo-sphenoidal ; slight about the olfactory nerve.

On the *left* hemisphere, adhesions were somewhat more extensive and intimate than on the right ; their distribution was much the same. Now the left frontal gyri suffered more than the right, especially the third, and slight adhesions existed at the tip of the left frontal lobe. The first and second temporo-sphenoidal were slightly affected. But the adhesions on the angular, marginal, inner surface of postero-parietal lobule, and on the inferior surface, were like those on the right side.

Brain flabby and somewhat softened. Grey cortex slightly wasted in front. White substance hyperæmic and soft. Tips of temporo-sphenoidal lobes much softened ; so, also, the fornix and corpus callosum. Basal ganglia hyperæmic. Pons and med. obl. slightly softened and hyperæmic. Ependyma of fourth ventricle thickened, and of gelatinous appearance, but not granulated, and no marked vascular dilatation was observed about the floor of the ventricle. Cerebellar softening, hyperæmia, and meningeal changes.

CASE VIII. Early visual (and auditory) hallucinations.

Extensive arachnoid cyst over superior and external surface of left cerebral hemisphere. Arachnoidal opacity and pia-matral œdema less marked in front than behind, invading occipital region, slightly observed in temporo-sphenoidal, and slightly more marked over left than over right hemisphere. Adhesion and decortication very slight, and mainly at the posterior part of the *left* postero-parietal lobule, left angular gyrus, and gyrus rectus. Very slight adhesions also on the posterior extremity of the left second temporo-sphenoidal gyrus, and inferior aspect of the tip of the left gyrus uncinatus.

Also very slight adhesion, in *right* hemisphere, on the first frontal gyrus, anterior border of orbital surface, and second temporo-sphenoidal convolution.

Cerebral grey cortex reddish, wasted, and slightly firm anteriorly, pale elsewhere, slightly more wasted and firmer at left than at right orbital surface. White substance congested, slightly indurated in its anterior portions. Basal ganglia somewhat wasted, of ordinary consistence and vascularity. Ependyma of lateral ventricles not much altered. Ependyma of fourth ventricle somewhat thickened, opaque, and granulated. Pons and med. obl. of full vascularity. Slight adhesion and decortication of cerebellum.

Here, an angular gyrus was among the few parts suffering from the adhesive change, and the case favours the theory.

CASE IX. Well-marked visual (and auditory) hallucinations for a considerable period of time. No special lesion of the supposed cortical visual centres, except very slightly in the right hemisphere.

The right cerebral hemisphere was the one the more diseased. The meningeal changes were well marked over the superior and external surfaces of the cerebrum, especially over the anterior two-thirds of these surfaces, attaining their *acme* over the frontal tips. The adhesions were few and slight; and on the *right* hemisphere occurred at the posterior part of the first frontal convolution, also near the posterior end of the second frontal, and at the upper border of the Sylvian fissure, affecting here the lower edge of the two ascending gyri and of the third frontal. Some still slighter adhesions were found on the angularis, supra-marginalis, and rectus.

In the *left* hemisphere the only convolution with adhesion was the gyrus rectus.

The cerebral grey cortex was reddish, mottled by dilated vessels, &c., of about ordinary consistence, but slightly firmer anteriorly, thin and pale in the orbital region. White substance highly vascular. Lateral ventricles large, their lining membrane somewhat altered. Basal ganglia of fairly healthy appearance. Cerebellum affected with slight meningeal adhesions, otherwise of natural appearance. Ependyma of fourth ventricle considerably changed (in usual way). Medulla oblongata slightly firmer than usual; it and the pons Varolii together only weighed $\frac{3}{4}$ oz.

CASE X.—Hallucinations and illusions of all the special senses were exhibited. Confining attention here to those of sight, the visual centres were not among the parts more particularly diseased, and, indeed, were free from well-marked, gross, morbid change. Moreover, with hallucinations of all the special senses, of the several supposed cortical sensory centres, those of smell and taste alone were specially affected. The pons Varolii was extremely diseased.

Thickening, opacity, hyperæmia, and œdema of the meninges were present, with subarachnoid effusion. These changes, for the most part of ordinary distribution, were unusually marked over the pons Varolii,

and they lessened decidedly at the first temporo-sphenoidal sulcus. Adhesion and decortication were very slight and superficial, and only seen at a few points, namely, on both cerebral hemispheres, over the middle of the external surface of the second and third temporo-sphenoidal convolutions; also over the internal surface of the left uncus gyri uncinati; and at several spots on the inferior surface of the right hemisphere.

The cerebral grey cortex was slightly hyperæmic, especially in the anterior regions; it was slightly atrophied in the frontal region; in the left hemisphere it was paler than in the right, and was of a faint dull-whitish hue. The white medullary substance of the cerebrum was not much altered. At the orbital surface the cortical grey matter was thin and slightly hyperæmic; that of the temporo-sphenoidal lobe was softened, and was paler on the left than on the right side.

Fornix softened; ependyma of lateral ventricles slightly opaque; basal ganglia of ordinary consistence and vascularity; ependyma of fourth ventricle much thickened and granulated, the subjacent sections of a violet hue; patches of sclerosis in the pons Varolii; medulla oblongata pinkish on section; pons Varolii and medulla oblongata together only weighed $\frac{3}{4}$ oz. Cerebellum of ordinary appearance. Olfactory bulbs wasted, but non-adherent. Spinal cord; a small blood-clot adhering to the posterior surface of the cord opposite to the third and fourth cervical vertebræ.

CASE XI. In many respects an unusual case, chronic in its course, and presenting visual hallucinations, especially during the middle periods. The supposed visual cortical centre was not among the parts principally affected.

Slight traces of pachymeningitis and of ancient dura-matral hæmorrhage, especially on the right side. Arachnoidal opacity, pia-matral œdema, and some convolitional wasting, almost equally in the frontal and parietal regions; much less marked elsewhere.

Adhesion and decortication very slight, and, of the two, somewhat more affecting the right than the left cerebral hemisphere, there being a few small adhesions on the anterior half of the inferior and external surfaces of the *right* temporo-sphenoidal lobe, namely, on the gyrus uncinatus, and second and third temporo-sphenoidal gyri; also, on the posterior end of right first frontal, on the orbital surface, and marginal convolution. On the *left* side they were found only at the tip of the temporo-sphenoidal lobe, the inferior surface of anterior end of third temporo-sphenoidal gyrus, and upper edge of anterior part of second. The middle portions of the surface of the cerebellum were also similarly affected.

The right frontal grey cortex was somewhat wasted, and the subjacent white substance was of slightly increased consistence. Slight wasting of the parietal grey cortex was also obvious. The atrophy of the grey cortex was less in the left hemisphere, and was apparently limited (or nearly so) to its anterior one-half. Here, also, it was of a

more reddish hue than on the right side. Generally speaking, the hue and consistence of the grey cortex were ordinary; its stratification was badly marked.

Lateral ventricles large, "sanded" by minute granulations, contained fl̄ss of fluid. Fifth ventricle large, its walls opaque and thick. Basal ganglia flabby; optic thalami of pale, mottled aspect, slight softening of upper surface of right optic thalamus. Pons Varolii and medulla oblongata slightly hypervascular; ependyma of fourth ventricle strewn with granulations; the nervous substance beneath it congested and discoloured. Spinal cord; softening of grey cornua on left side.

Microscopical; the tip of the right frontal lobe presented somewhat more marked microscopical changes than the right ascending parietal gyrus, while in the right temporo-sphenoidal lobe the microscopical changes were less marked. The nerve-cells were in several phases of change, dull ground-glass-like, granular, or atrophied; interstitial overgrowth with most abundant nuclear effusion or proliferation were observed; also pigmentation and moderate vascular changes of the usual kind.

In the next, and in the remaining, cases under the present heading, both visual and auditory hallucinations were observed, and as full details of each will be given when treating, in the next section, of auditory hallucinations, it will be only necessary here to refer to that description, and to add a word of comment as to the visual centres.

CASE XII. This is the same as case 16, full details of which are given below under the heading of "Auditory Hallucinations," *q.v.*

Here the angular gyrus escaped adhesion, and the supra-marginal was only moderately affected. That is to say, the supposed cortical visual centres were but slightly affected.

CASE XIII. For details see case 20 under "Auditory Hallucinations." The case was not a favourable one for testing localization theories.

CASE XIV. For details see case 22.

Here the visual hallucinations were less marked than the auditory. The supposed visual cortical centres were very considerably diseased, and were more so than the supposed auditory cortical centres.

CASE XV. For details see case 23 under "Auditory Hallucinations."

This case agrees well with the theory, the supposed visual and auditory cortical regions being the very parts most affected with adhesion.

(To be continued).

The Nature of Insanity. By CHARLES MERCIER, M.B. (Lond.), F.R.C.S., late Senior Assistant Medical Officer at Leavesden Asylum.

II.

Before the circulation of the blood was discovered, the pathology of diseases of the heart must have been unknown, and their treatment empirical and of little effect. Before the discovery of the glycogenic function of the liver, the pathology of diabetes remained a mystery, and its treatment a matter of guess-work. In all dealings with the facts of life, the science of the normal must precede the science of the abnormal. In the domain of mental operations the science of the normal is of very modern discovery, and Alienism, the science of the abnormal, has consequently been until recently compelled to limit itself to collections of materials for future use, and to tentative groupings of these materials which have necessarily been provisional on their harmonizing with the future developments of the science.

Mr. Herbert Spencer having done so much, as I think, to supply a firm basis of knowledge in the region of the normal, the time seems to have arrived for erecting on this basis a system of procedure with respect to the morbid, and for using the principles of healthy mental action with which he has provided us, as standards by which to test qualitatively, and to measure quantitatively, the aberration which occurs in the insane.

The preceding paper was mainly occupied in insisting on the inadequacy of the prevailing concept of insanity, and although the present series of articles is intended to furnish the alienist with a system for daily use and reference in the wards and in the consulting room, yet it is necessary first to diverge into a somewhat parenthetical examination into the nature of insanity, for it is manifest that no discussion can be useful in the absence of an adequate concept of the matter discussed. Let those who doubt the truth of this statement turn to the interminable discussions of the schoolmen on the Essences, discussions prolonged over generations, discussions in which were engaged men whose reputations as thinkers have lasted for centuries, but all whose industry and all whose ability have resulted in their labours being regarded with wonder indeed, but with a pitying and contemptuous

wonder at the barren outcome of such immense exertion. Of their voluminous writings one can but say with Hamlet, "words, words, words," and with Macbeth, "signifying nothing."

In attempting to obtain a clear concept of the Nature of Insanity, and to express this concept in the form of a definition, I am quite conscious of the temerity of the effort. Again and again the attempt has been made by successive writers on insanity, and again and again the result has been condemned, until all hope of discovering a satisfactory definition seems to be failing, and it has come to be called "an *ignis fatuus* which eludes and bewilders pursuit." Nay, such attempts at definition are said to show only the narrowness of the definer, and it seems doubtful whether they are not even held deserving of moral reprobation. Upon examining the matter, however, there does not appear to be any valid reason for relegating the definition of insanity into the limbo of impossibilities. Insanity is surely a sufficiently definite entity. So easy is its practical recognition that every medical practitioner, whether he has had any psychological training or no, is considered by our legislators competent to pronounce whether it exists or not in any given case. That is to say, he is legally competent to say on which side of the line which divides sanity from insanity his patient is situated. And yet we are to admit that no such line can ever be drawn! True, the line may be a broad one, its edges may be blurred, but to deny its existence, to deny that insanity can be defined from sanity, is equivalent to saying that they do not exist apart. It may well be that insanity is not abruptly demarcated from sanity, for it is a natural group of things, and where in nature do we find an abrupt demarcation? But if on that account we renounce the attempt to define it, all definitions whatever must be abandoned. What, after all, is a definition? It is an expression of the subjective concept which corresponds to the objective existence of a group of things. And to admit our inability to define a group of things is to admit that our concept of the qualities belonging to that group is not in correspondence with them, that we are not sufficiently acquainted with them. To say that we can never frame a certain definition is, therefore, to say that our knowledge has reached a definite limit beyond which it cannot advance, which is absurd. Whether it be possible or impossible to frame a definition of insanity, at any rate the attempt must

be made, not only on the ground above stated, but because I have found upon trial that it is impracticable to render intelligible the scheme of investigation promised in the last paper, without a previous explanation of the principle on which it is founded.

While dwelling on the necessity of recognising the distinctness of nature between the several orders of facts which insanity presents, the previous article also insisted that these several orders of facts are interdependent on one another, and maintain throughout a correspondence; and, moreover, that the nervous process is the central fact which elicits the other two. When a nervous centre energises feebly, an idea of a movement, say of stretching forth the arm, arises in the mind. When the same nervous centre energises more strongly, the same idea arises more vividly in the consciousness, and the movement actually takes place; the arm is stretched forth. From this fundamental correspondence it results that the laws governing the actions of these processes must have a like fundamental similarity. If, therefore, normal conduct and normal mental action depend on normal nervous processes, the alteration of conduct and of mental action in the insane must depend on morbid alteration of nervous processes; and the possible departure from the normal that can occur in the nervous process must be the measure of the total possible aberration in insanity. Hence, proceeding on the deductive method, a knowledge of the manner and degree to which the action of the nervous system can be disordered must be the first requisite to a comprehension of the whole process of insanity.

Regarded physically, and reduced to its most general terms, the nervous system is an apparatus for the storage and expenditure of force; and the condition of greatest efficiency is that of maximum storage, and of an expenditure bearing a certain proportion to the amount in store. The possible disorders of such an apparatus are deficient storage on the one hand, and deficient or excessive expenditure on the other.

Deficient storage of force in the nervous system is the physical basis of all forms of alienation characterised by underaction, as idiocy, imbecility, and dementia. For, since every nervous discharge issues ultimately in bodily movement, diminished bodily movement must result from diminished nervous discharge; and since the capacity of the nervous system, or the amount of so-called potential energy

that it can contain is limited, persistent defect of bodily movement cannot result from persistent limitation of discharge, but must be due to deficient storage. It is true that a considerable proportion of the liberated force may be absorbed in opening up new channels of communication among the centres, this being the physical accompaniment of mental activity, and thus the actual bodily movement may be disproportionate in amount to the discharge in the brain, but the ultimate result is in movement of such increased complexity as to compensate for the diminution in quantity, and besides, such diminution would not be persistent.

Defective expenditure of force by the nervous system cannot persist unless storage is defective also. The capacity of the nerve-cells being limited, if storage continues while expenditure is checked, then when the accumulation has reached a certain point, a discharge *must* ensue. The tension which exists when the discharge of the lower centres finds no ready outlet, has for its mental accompaniment the appetites; and the same condition in the higher centres is accompanied by the mental condition known as *ennui*. It is probable that the insanity which occurs in the subjects of solitary confinement, has for its physical accompaniment a continual accumulation of energy, which, finding no normal outlet, at length reaches such a pitch that it bursts out in tumultuous and violent action.

The last mode in which it is possible for the nervous process to become disordered in a physical sense is by excessive expenditure, resulting in increased bodily movement, as in all forms of insanity characterised by overaction. Since, as before insisted on, the capacity of the nerve-cells is limited, an excessive expenditure, by which is meant an expenditure persistently in excess of restorage, must necessarily result in exhaustion, that is in removing the greater part, and if continued long enough, the whole of the available force from the nerve centres. Their store of force being diminished or exhausted, the function of the nerve centres, which is the expenditure of this force, is necessarily weakened or stopped, and as the storage of force is a work of time, this function cannot be restored to efficiency until after an interval. Hence all states of overaction are of necessity intermittent. When the overaction has been extreme, recuperation may be impossible; the store of force may be exhausted so far that not enough remains to provide the motion necessary for carrying on the vital functions; the

circulation or the respiration will then fail, and death result.

Hence it appears that as a consequence of the physical constitution of the nervous system, every form of insanity must be a condition of underaction, a condition of overaction, or an alternation of the two. Furthermore it is apparent that while we have here a wide boundary within which insanity must lie, yet that the two are by no means co-extensive. In fever there is a general underaction of the organism. The individual tissue elements may be overacting, but the combined movements of the organism are greatly diminished. Yet the fever patient is not necessarily insane. It is true that at the time of greatest prostration, that is of greatest underaction, he may become alienated (delirious), but the underaction may be very great without perceptible alienation, and the latter is rarely an important or preponderant feature of the disease. Again, a man flying from an enemy may undertake such excessive exertion, *i.e.*, such overaction, as may prove rapidly fatal. Yet he is not on that account insane. Clearly, therefore, it is necessary to find some narrower boundary, within the limits of under and overaction, which shall be co-extensive with the field of insanity.

The starting-point from whence the above very general view of insanity was obtained, was an enunciation of the functions of the nervous system of the widest possible generality. A more special enunciation may lead to a more specific conclusion. The physical view takes account of the amount of force stored and expended by the grey matter of the nerve centres, but it takes no cognizance of the directions in which the expended force is distributed. This is a matter for the physiologist, and physiologically the function of the nervous system is to distribute its force in such a way as to co-ordinate the movements of the several parts of the organism. By co-ordination is meant combination in determinate ratio. The possible deviation from the physiological normal is, therefore, the inco-ordination of movements, or their combination in indeterminate ratio. The term co-ordination has been so much and so exclusively used in medicine with reference to a disease which presents a singular and striking instance of one form of it, that its use here will tend to mislead unless the more general meaning is illustrated.

Within the range of normal action the several movements

of the organism are combined in determinate ratio. When I make an up-stroke with my pen, my interossei muscles must contract, and the flexors of my fingers must elongate to an equivalent extent. Similarly the movements of the thumb must bear a determinate ratio to those of the fingers. More than this, the dimensions of the following down-stroke must bear a definite proportion to those of the up-stroke which preceded it. Further consideration will show that the movements which form each letter and each word must bear a definite ratio to those which precede and follow them. Again, if I reach over the table to get a book, the movements of my arm must bear a determinate ratio to those of my trunk—the more of the one the less of the other; and similarly if I rise to my feet to reach it. Further, if I undertake a prolonged exertion, the movements which subserve the prehension and assimilation of food must bear a determinate ratio to those which dissipate force, otherwise the exertion fails from defect of food, or is clogged and encumbered by excess. Without adducing further examples, it will be evident from those given above that co-ordination and inco-ordination are extremely comprehensive terms, that there is a co-ordination of the movements both simultaneous and successive of the various parts of the organism and of the organism as a whole, and that any one of these forms of co-ordination may fail.

It will be apparent that by regarding insanity from the physiological standpoint as an inco-ordination, a distinct advance has been made in the precision of the concept. For inco-ordination of movement has been defined as an alteration of the ratio of one movement to another, and an alteration of the ratio between two movements means that one movement is relatively increased, or that the other is relatively diminished, that is that one part must overact or another must underact. Hence the provisional definition of insanity at which we have now arrived will be the underaction or overaction of the organism as a whole, together with the underaction or overaction of its parts relatively to one another. The idiot who sits still all day emitting “beastly bellowings” exhibits, with a general underaction, an overaction of one set of movements. So with the dement who perpetually goes through the movements of washing clothes. The patient with acute delirious mania exhibits general overaction, but there is entire absence of the movements by which he should earn his living, and a serious

underaction of the movements subserving the prehension and assimilation of food. If we believe in the parallelism between the psychical condition and the nervous processes—and on the existence of such a parallelism is based the whole fabric of alienism and the better part of psychology—then we must believe that the undue preponderance of any psychical condition, be it a preponderance of malice, of suspicion, of melancholy, of amorous or any other feeling, has its material counterpart in the overaction, absolute or relative, of some portion of the nervous system; what portion, or how much, it is no part of the present argument to inquire, but some overaction there must be, or the parallelism would not be maintained. While, however, the train of reasoning here gone through compels us to admit that every form of insanity must of necessity be an inco-ordination, that being the sole possible physiological abnormality of the nervous processes, yet the disease which is the commonest example of inco-ordination—locomotor ataxy—shows how the simultaneous movements of different parts of the organism may be combined in indeterminate ratio without any approach to the condition of insanity. While, therefore, a step has been gained in the precision of our concept of insanity, a further limitation of it is necessary.

The case has been instanced above of a man sitting still all day and shouting. Such an act we call insane, but if the man is a shipwrecked mariner who has sighted a ship from the open boat in which he has escaped, the act is not an insane one. Here the difference is not in the act but in the circumstances surrounding the actor. A man who is unable to enumerate more than five objects, who walks about naked *coram populo*, adorning his person only with tawdry ornaments, is called insane; but if he has a black skin and lives on the banks of the Congo, he is considered an average specimen of normal humanity. If a man jumps out of a second floor window into the street beneath, we consider such an act proof of insanity. But if the house is in flames behind him, and the firemen below are holding a blanket to catch him, the act is a rational one. If John Stubbs, bricklayer's labourer, orders a carriage and pair to be sent to his stables and a banquet to be spread at his private residence, he is considered insane, but the same orders from his Grace the Duke of Omnium would be perfectly normal. In all these cases the same act may be sane or insane according to the surrounding circumstances which environ the actor,

and it is obvious, therefore, that no formula of which a reference to these circumstances does not form an integral part, can adequately express the true nature of insanity.

These considerations lead us to the last and most highly special function of the nervous system, viz., its psychological function, which is to co-ordinate the movements of the organism as a whole, with reference to its surrounding conditions, or in Mr. Spencer's language, to adjust the organism to its environment. Regarded from this, its psychological aspect, it is evident that the total possible deviation from the normal, of which the nervous processes are capable, is the non-adjustment of the organism to the environment. A moment's consideration will show that every case of insanity is an instance of the non-adjustment of the organism to its environment, and an examination of the cases instanced above will show that the insane quality of the act is not intrinsic in the act itself, but in the maladjustment of the act to the circumstances under which it was performed. Even this expression, however, much as it has advanced in precision over those which went before, cannot be accepted as final without a further limiting modification. If a man break his leg, he is by reason of his broken limb thrown out of adjustment to his environment, but a broken limb is not a condition of insanity. Similarly with valvular disease of the heart, the embarrassment of the heart's function diminishes the movement of the whole organism, and renders it less able to contend with surrounding conditions, that is, it throws it out of adjustment to its environment; and so with every form of bodily disease. What then is the difference between the non-adjustment of the organism to its environment which results from bodily disease and that which constitutes insanity? The difference is this, that in bodily disease the failure is primarily in the adjustment of the different parts of the organism to one another, from which it results secondarily that the altered organism is no longer adjusted to its environment; while in the case of insanity the failure is primarily in the actual process of adjustment to the environment, and whatever failure there may be in the adjustment of the several functions to one another within the organism is a secondary affair. In bodily disease the functions are out of relation to one another; in insanity the organism as a whole is out of relation to its environment. In every aberration from the normal in the life of an organism there are three elements

to be considered. There is the organism, there is the environment, and there is the process of adjustment of the one to the other; and either of these three may alone primarily depart from the normal. If a man is imprisoned in a mine by a fall of earth, if he is floating alone in the ocean, he is unadjusted to his environment, but the failure in the adjustment arises from no defect in the organism, neither is the *process* of adjustment of the one to the other primarily disordered, for the efforts at digging in the one case and swimming in the other are attempts to readjust the organism to its altered environment; in other words, they indicate the integrity of the *process* of adjustment; what is at fault in the environment itself.

The organism may itself become abnormal, owing to the failure of the internal functions to correspond with one another, as in the case of valvular disease of the heart; and this disease of the organism necessitates a certain defect in the adjustment of the organism to its environment; but what follows? The subject of the disease alters his method of living; he refrains from active exertion; he alters his diet; he ingests remedies; he removes his bedroom to the ground floor. In other words, he readjusts as far as possible his altered organism to its environment. Here there is no failure in the environment, and there is no failure in the process of adjustment of the organism to its environment. What has failed is the adjustment of the processes within the organism which allow of its adaptation to its environment. So in the man with the broken leg, the parts of his organism have become unadjusted to one another, and this alteration within the organism necessitates its readjustment to its environment. The patient gives up locomotion, and goes to bed; in other words, the required readjustment takes place. But now suppose that the patient becomes delirious. He gets out of bed, and tries to walk. The act is manifestly an insane one, not in itself, for to a normal organism it would be perfectly normal, but because it is no longer adapted to the altered relations subsisting between the organism and its environment. In other words, it exhibits a failure in the *process* of adjustment.

The bodily disease which is most closely allied to insanity is epilepsy, and the definition which shall establish a satisfactory distinction between them must be acknowledged to make *ipso facto* a close approximation to adequacy. Epilepsies may for the present purpose be broadly divided into

three kinds—the epileptiform seizure, the *grand mal*, and the *petit mal*. The epileptiform seizure is a bodily disease. There are convulsive movements of a part of the body; there are, that is to say, maladjustments of parts of the organism to one another, and these internal maladjustments necessitate a readjustment of the whole organism to its environment; for instance, the patient leaves off work. But the readjustment does actually take place. There is no primary failure in the readjustment of the organism to its environment; there is no insanity. The *grand mal* is a combination of bodily disease with alienation. There is convulsion; there is profound disturbance of the fundamental vital processes, of circulation, respiration, and the various secretions, all of which maladjustments are purely internal; but there is at the same time a simultaneous disorder of the three elements which were given in the previous paper as forming the basis of insanity. There is excessive discharge, or disordered nervous process; there is excessive movement, or disorder of external manifestation; and there is loss of consciousness, or disorder of subjective accompaniment; yet an epileptic fit is looked on as a bodily disease, and not as an act of insanity. And the reason is clear. Although the organism is thrown completely out of adjustment to its environment, and although the several events in the paroxysm are so nearly simultaneous that no observation can determine which is primary and which secondary in point of time, yet, wide as is the maladjustment of the organism to its environment, the tremendous commotion among the interactions within the organism is by so far the most prominent and striking of the two abnormalities, that it is by common consent allowed to have the leading rôle, and an epileptic fit is universally and rightly regarded as in the main a bodily disorder. Lastly, in *petit mal* there exist both forms of the maladjustment; there is failure in the process of adjustment of the organism to its environment, and there is some disturbance in the relations which the bodily processes bear to one another. The failure in the first process is seen in the disturbance of consciousness and in the altered conduct. The disturbance of consciousness may be vertigo, or it may be one of those complex reminiscences to which attention has been drawn by Dr. Hughlings-Jackson, or it may be a vague confusion of which no precise description can be given, or it may be total loss of consciousness, but there is always some disorder of mind.

The alteration of conduct is seen in the relinquishment of work and in the "automatic" movements which these patients often perform. In such attacks the patient is considered alienated or not according as the failure in the process of adjustment of the organism to its environment is or is not the primary and preponderating feature in his malady. If, overcome by vertigo, he calls for help, and clutches at surrounding objects to save himself from falling, he exhibits by so doing an attempt to readjust his altered organism to its surroundings, which shows that the process is intact, and that he is not alienated. But if he, being a cobbler, goes through empty-handed all the movements of mending the shoe which has fallen from his lap and lies unnoticed on the floor, then it is equally clear that the failure is in the process of adjustment, and that he must be pronounced to be alienated. It is true that this condition is ordinarily so transient that the patient is not formally called insane, but the identity of the condition with that of insanity would be at once recognised if it were permanent or of longer duration.

The other bodily condition which approaches most nearly to insanity and occasionally merges into it, is the strange assemblage of symptoms which are grouped together under the title of *Hysteria*. Without here entering upon the subject of the actual nature of hysteria, a subject of great magnitude and difficulty, it may be taken as universally admitted that between insanity and hysteria there is a material difference. Although the hysteric patient exhibits disorder of the mind, yet she cannot be considered as necessarily or invariably insane, and this alone is enough to negative the definition of insanity as a change of mental conditions only. The difference between them is still the same, that while in insanity the disorder is in the process of adjustment of the organism to its environment, in hysteria the non-adjustment exists not primarily, but secondarily, by reason of the previous disorder which has occurred among the processes going on within the organism itself. A consideration of the multitude of abnormities known as hysterical will render apparent the truth of the above statement. A patient lies in bed on account of a "pain in her knee," for which no recognisable cause can be found; and in order to put the case most unfavourably for the present hypothesis, let us postulate that there is no structural alteration in the knee to account for the pain. "Very well, she is shamming, and

that settles it," says the practical man. But that does not settle it. Grant that the patient is shamming, and now whence arises the propensity to sham? Shamming is not normal action. There still remains something to account for, and the difficulty is not removed but postponed. The practical man has paid his debt indeed, but he has paid it with a bill at sight which all his resources are insufficient to meet. So obvious a foolsmate has long discredited the theory of the practical man, and it has moreover become the general opinion among thoughtful observers that in "hysterical pain" there is pain actually felt, and the question to be answered is, What is the nature of the defect when pain is referred to a part which is structurally normal? Pain is a mental state; it is an affection of mind, and like all other mental states it is the accompaniment of a nervous process. "What is objectively a change in a superior nerve centre is subjectively a feeling." To say that the process in the superior nerve centre which normally accompanies structural alteration in the knee, now occurs in the absence of such structural alteration, is to say that the nervous process and the structural condition of the knee are unadjusted; and this non-adjustment is wholly comprised within the limits of the organism.

Now suppose that the hysteria is manifested by a fit of immoderate laughter. Such laughter is not spontaneous, it is excited by some risible incident in the environment, but it is out of proportion in duration and amount to the ludicrousness of the incident which provokes it. In other words the action of the organism is primarily unadjusted to the state of the environment. Is this then an act of insanity? Hardly; for together with the laughter, which is often called *uncontrollable*, there goes the perception of its inappropriateness, and the endeavour to moderate it to an amount proportionate to the incident which excited it. That is to say, although the process of adjustment of the organism to the environment is primarily disordered, yet this disorder affects a portion only, and a subordinate portion of the process; and while this one portion of the process is disordered, another and higher portion is striving to readjust it and restore the correspondence. Evidently, however, we have here reached a point at which the balance between bodily disease and insanity is trembling at the turn, and the further distinction between them will become increasingly difficult. But this difficulty arises from no defect in the distinction here drawn

between them, but because the things themselves merge by insensible gradations into one another. When it is remembered that the highest nervous processes, which subserve the highest and most complex adjustments of the organism to its environment, are developed by successive degrees out of the lowest nervous processes which subserve the simplest adjustments of the parts of the organism to one another, and that between these two extremes there exists a continuous series, or rather an interwoven plexus of many continuous series, it will be evident that the functions must exhibit a gradation similarly continuous, and that at no place can a definite line of demarcation be drawn between them; and he who would endeavour to do so must first settle that precise transverse plane in the body of a snake where the body leaves off and the tail begins. While, however, the provinces of the physician and the alienist are contemporaneous and to a certain extent overlap, it is none the less accurate to say that the physician is concerned with the failure in the process of adjustment of one function to another within the organism, while the alienist is concerned with the failure in the process of adjustment of the organism as a whole to its environment.

Insanity has, however, other sides than that which unites it to bodily disease, and an adequate definition must limit the concept not on one side only, but on all. When a man coming downstairs fails to observe the last step, and falls in consequence, there is a very distinct failure in the adjustment of the organism to its environment. On the one hand the internal concept of the spatial relations of surrounding objects fails to correspond with the spatial relations existing externally; and on the other hand the action of putting down the foot is adjusted to a position of the floor a step higher than it actually is, that is it is unadjusted to the position of the floor existing in the environment. The lad who, estimating his own power of leaping and the width of the brook in front of him, decides that he is able to cover it, and on trial jumps short and gets a ducking, exhibits a failure in the adjustment of the organism to its environment. The man who estimates that it will take him ten minutes to walk to the station, and so regulates his pace that it takes him twelve minutes, whereby he loses his train, exhibits a similar failure. The business man who, forecasting a rise in prices, buys heavily, and on a fall of prices ensuing sells at a loss, exhibits a similar failure. The statesman who, observing

the temper of Parliament, the tone of public meetings, the position of national affairs, the state of trade and the result of bye-elections, dissolves Parliament in the hope of increasing his majority, and finds himself defeated at the elections, exhibits a similar failure. In all these cases there is a failure in the adjustment of the organism to the environment, yet none of them is a case of insanity. They are Mistakes, and it becomes necessary to re-examine our formula to see if it really includes mistakes in its denotation, and if it do to modify it so that they may be excluded.

To say that the organism is adjusted to the environment is to say that it is in definite relation with the environment, and for a relation between two terms to be definite it is necessary that the terms themselves between which the relation subsists should also be definite. Thus between the terms "ten" and "three and a third," a definite relation can be established; but between the terms "ten" and "three and a fraction," no definite relation can be established, and the failure in definiteness of the relation occurs from no defect in the *process* of establishing the relation, but from the indefiniteness of one of the terms between which the relation subsists. And this is the distinction between an insane act and a mistake. In the former there is the failure to establish a definite relation between two definite terms, in the latter there is a relation established which is indefinite because its terms are one or both wanting in definiteness. For the organism to be adjusted to its environment, not only must the process of adjustment be normal, but both of the terms to be adjusted must be definitely representable in consciousness. Now the definition of insanity is a failure in the *process* of adjustment, and the onus of failure lies in the process itself only when the terms are capable of adjustment. If the condition of the organism on the one hand, or the condition of the environment on the other, is such that they are either of them incapable of being definitely represented in consciousness, then the failure is in the representation of the terms in consciousness, and not in the process of adjustment of the one to the other. In each of the above examples, and in all cases of mistake, it will be found that the failure is in the representation of the terms in consciousness, and not in the process of adjustment of the one to the other. Thus in the case of the lad jumping the brook, neither the amount of exertion necessary to clear the brook nor the capability of the organism to put forth the exertion

were definitely representable in consciousness, and hence the adjustment failed. In the second case, the distance between the man's house and the station is not representable in consciousness with sufficient definiteness, and again the adjustment fails, and so of the other cases. In the case of the man who misses the last stair, he is occupied with some other train of consciousness, he is "not looking," and hence the environmental term, though sufficiently definite to be presented distinctly in consciousness, is actually, from the fault of the organism, not so presented, and hence the failure of adjustment must still be pronounced a mistake. How near this mistake approaches to momentary alienation is seen in the common explanation of it as due to "absence of mind," and it bears much the same relation to insanity that deep sleep does to coma. If a person with open eyes and in broad day advances to the head of a staircase and walks on to the stairs with the movements appropriate to walking on level ground, an act not very uncommon in dementia, the case is otherwise. Here the terms are definitely presented, and the failure, which must be referred to the actual process of adjustment, is rightly attributed to insanity.

From whatever point of view it is regarded, insanity is then found to be a failure in the process of adjustment of the organism to its environment. While this definition is adequate as expressing all the facts of insanity, it at the same time clearly demarcates them from the occurrences of bodily disease on the one hand and from those of erroneous conduct on the other. The definition expresses in short the concept, the whole concept, and nothing but the concept, and fulfils therefore all the requirements of an adequate definition. But the discussion now terminated, somewhat tedious as I fear it has been, has furnished us with far more than the empty gratification of a definition. It has furnished a stable foundation on which to build the system of alienism referred to in the preceding paper, and it has enabled us to trace the outlines of the structure. Given that insanity is a disorder in the process of adjustment of the organism to the environment, it follows that profitably to investigate a case of insanity, it is necessary to examine in detail the factors in that process, and to apportion to each its share in the result. Now the factors in the process of adjustment of the organism to its environment are two:—the totality of the internal processes of adjustment and the totality of external processes of adjustment, which are,

roughly speaking, co-extensive with mind and conduct respectively; and here we arrive by another route at the conclusion previously reached, that the first requisite to the profitable study of insanity is the formation of schemes for the investigation of these two orders of facts.

It may seem that the above review extends over a field unnecessarily wide in proportion to the result attained, but the view of insanity as a condition of overaction or underaction of the whole organism and of its parts, though it has disappeared from the definition here arrived at, was not only a stepping-stone to the result attained, but will reappear and will be found of service in the future consideration of the Forms of Insanity.*

CLINICAL NOTES AND CASES.

Emotional Insanity with Homicidal Violence. By PHILO-INDICUS.

In the beginning of 1880 the following scene took place at a well-known institution in London, where ladies are trained for various useful occupations in the world.

Miss A., aged 33, who had here formerly gone through a partial course of instruction extending over two years, but who had been removed in consequence of a violent outburst of temper, accompanied by personal violence, at one of the country branches of the institution, called on Miss B. (who was somewhat her senior in age), the managing superintendent at head quarters, in view to being again allowed to resume work. Miss B. assured her visitor that, whilst the lady superior had freely forgiven her, this could never be; for, it must be admitted that the final out-break in the country was but the climax

* While engaged on the above paper I found that Dr. Hughlings-Jackson had already arrived at the conclusion that insanity was a failure of adjustment of the organism to its environment, and in one of his published articles there is an incidental allusion to insanity as "a loss of the most highly special adjustments of the organism to its environment," a view not very far different from that advanced above. Having enjoyed the great advantage of a long experience in diseases of the nervous system in Dr. Hughlings-Jackson's clinic, I find it not always easy to separate the views which have been derived from his direct inspiration from those which I have arrived at by independent pursuit of the methods of thought which he teaches. In the present instance, having become acquainted with Dr. Jackson's views after the above paper was written, I am unable to fix upon him any responsibility for the views it contains, but I claim his nearly corresponding expressions as the strongest corroborative evidence of the approximate truth of my thesis.

of a series of displays of temper, jealousy, and revenge in London ; all of which had been pardoned by the head of the establishment, and who had moreover most kindly given Miss A., much against her better judgment, the employment in the country branch for which, as for all other, she proved herself, owing to her want of self-control, so utterly unfit. Miss A. had always entertained an intense affection for Miss B., whom she regarded as a being of a superior order ; and whom, in fact, she idolized. Miss B., on the other hand, whilst fully appreciating the love and worship thus lavished upon her, looked on Miss A. as a lady with warm feelings, and highly religious tendencies, but with an unbalanced mind, and as one who needed a great deal of discipline. Miss A. accepted this verdict upon herself, but complained that, whilst she could not in spite of it help loving Miss B., the latter did not return her love to the extent that she required. At the close of a few minutes' conversation, Miss B., whose preparation of letters for the evening post had been much delayed by the arrival and continued presence of her pertinacious visitor, requested that, as the post hour was near at hand, Miss A. would for the time kindly leave her. Thus saying, Miss B. turned to write, and, in doing so, stooped to pick up a handkerchief that had fallen on the floor at her feet. Miss A., who during the interview, had contrived to obtain possession of a pair of sheathed scissors that had been lying on the table, at once made a dash with the naked blades at Miss B.'s neck, driving in the points about a quarter of an inch close to the principal vessels. Blood flowed ; Miss B. shrieked ; in rushed Miss C., one of the young ladies of the institution who, *suspecting mischief*, had remained outside the room in the neighbourhood. Other young ladies, with the two gentlemen secretaries, soon followed. On seeing these last, Miss A. threw her handkerchief over her head, and sobbed hysterically. A cup of tea, part of which she drank, was then offered to her ; and shortly afterwards she was removed to a neighbouring apartment, and there kept under surveillance. When Miss C. first came upon the scene of the onslaught, she found Miss B. standing and keeping her assailant at bay. She (Miss C.) stated that, at this moment, the expression of Miss A.'s face was diabolical. It should be added that, as the other ladies made their appearance, prior to the advent of the gentlemen, Miss A. pulled the cover off the table and, seizing some of the books that had been lying upon it, flung them at the heads of the spectators, crying out, "Ah ! you think yourselves too good for me, I have no doubt. Take that, and that." Miss A.'s relatives were at once telegraphed for ; and a consultation was subsequently held with Dr. D., a well-known expert in such cases. This gentleman, after a lengthened interview with Miss A., gave a very decided opinion that it was not safe to allow her to be at large. She distinctly told Dr. D. that, under similar circumstances, she would do the same again. Miss A. was accordingly, in due course, conveyed to an asylum for the insane ; and she is there now. During her residence

in it she has improved in physical health, and, having agreeable manners and a kind heart, has made herself generally popular. But, she can bear no contradiction, and is at times extremely irritable. By her bearing before the Lunacy Commissioners, on the occasion of their first visit to her, she thoroughly convinced those gentlemen of the propriety of the step that had been adopted; and the committee of management are quite in accord with the other authorities as to the wisdom and justice of her continued detention. Fortunately, Miss A. expresses herself as perfectly satisfied and happy, and as having no desire to leave the asylum.

Now, supposing Miss B. had been killed, and Miss A. put upon her trial, what would have been the result? A verdict of "temporary insanity" probably, followed by measures similar to those that have been taken. It should be stated that Miss A. now declares that she had no intention to take her dear friend's life; she only wished to startle her; and adds that she would not hurt a hair of the loved one's head. The loved one, however, and her friends feel that, if Miss A. were liberated and had access to her, she would be exposed to great risk, and all therefore trust that Miss A.'s incarceration may be prolonged. I venture to affirm that Miss A. is not insane; yet, her confinement is perfectly justifiable. It is indeed the kindest, as well as the safest and most just course that could be taken in a case of the kind. At first sight the case seems simple enough. A person of ungovernable temper is completely carried away by it, and, like one delirious with alcoholic excitement, is ready to destroy the object of her wrath. Were this all, the excuse for the homicide would hardly be accepted; and there could be but one punishment awarded, as the law now stands, on a verdict of guilty being pronounced. But, in Miss A.'s case, there is something more; and the rules that are applicable to the inhabitants of a Western hemisphere require modification when the individual is of Eastern origin.

History.—Miss A. is of mixed blood. Her father (who has been dead for many years) was an Englishman, whilst her mother (also deceased after being twice married) was the daughter of a European father, and a Persian lady, remarkable for her high breeding, but possessed of an intensely jealous disposition—a failing for which Eastern ladies generally are remarkable. This failing has been transmitted, with no abatement in intensity, to the granddaughter. Miss A. was addicted, when a child, to such violent outbursts of passion, that neighbours and the police would come and enquire what was the matter. Her father, on these occasions, would prophesy "durance

vile," in the years to come, in a lunatic asylum—a prediction but too surely fulfilled. But no judicious efforts appear to have been made by either parent to instil those restraining influences that might have prevented it. Both, though each in a different way, spoiled the child, who grew up into an ill-informed, proud, jealous and revengeful, though kind-hearted, woman. It redounds much to her credit, however that, realising the defects in her education, she should have set herself to remedy them as she best could; and still more, that she should have brought religion to bear in endeavouring to correct the faults of her *character*. It would seem as if the passionate elements of Miss A.'s nature were too deeply ingrained, and that, whilst her intellectual exertions met with success sufficient to make her an intelligent and agreeable member of society, her jealousy, &c., remained unconquerable. And, alas! so far from feeling sorrow for giving way to her temper, she would bring forward Biblical texts in extenuation. She would, indeed, deplore her inability to control her feelings, but not the existence of the feelings themselves. In short, Miss A. was dissatisfied with her lot in life, and was excessively jealous of those who, she imagined, were better off than herself. Thus, when only twelve years of age, she prayed that the children of her half-sister, who had made, in worldly phraseology, a good match, might be darker than she was! At the country branch of the establishment before mentioned she fancied that, in obedience to instructions from the managing superintendent in London, she was "put upon," and, so far from trying to endure certain little temporary and unavoidable inconveniences in the spirit of the Christian she professed to be, Miss A. magnified them into mountains of permanent discomfort, purposely invented, she believed, by Miss E., one of the authorities in the house, to annoy and insult her! To this lady consequently she took an inveterate dislike; nay, she even hated her, and that to such an extent, that Miss E.'s life was, unknown to herself, in perpetual danger. Happily, Miss A. never found the opportunity, for which she was constantly watching, of stabbing her with the knife that she, from time to time, kept concealed in her sleeve. That which led to her removal was the attempt to pitch a breakfast-tray with its contents from the landing of an upper flight of stairs on to the head of an amiable young lady of the establishment—an intimate friend, too, of Miss A.—who, having just left her, was quietly descending to the landing below. It may here be mentioned that the objects, in the London institution, of Miss A.'s vindictive wrath were for the most part amongst the meek and most unoffending members of the community, very unlikely to entertain towards *any one* the sentiments with which she credited them in reference to herself. When remonstrated with about throwing the tray, and the probable consequences if the intended victim had been struck, Miss A. replied that she only wished to startle her (the same expression that she used on a subsequent occasion), and to rouse the authorities generally to a sense of

their duty. She was being daily harassed, and only wanted justice. English people were apathetic, and *required* rousing! It was with great difficulty that Miss A. could be induced to leave with the friend who had been summoned. She finally did so, but only on the understanding that an enquiry should be instituted, as was done; with a result, however, adverse to Miss A., who then covered numerous sheets of foolscap with the story of her wrongs, for submission to various acquaintances and friends upon whose favourable judgment she fully relied. On one occasion, after Miss A. had lived for several months in the friend's house, irritated by a somewhat flippant remark made at the breakfast table by a young lady—a relative—22 years of age, Miss A. sprang up from her seat, seized the astonished girl by the throat, shook her, and boxed her ears. For this outrage no sorrow was expressed, nor could Miss A. ever be got to see that, for so trivial an offence which, if noticed at all, should have been communicated to the parents, she was hardly justified in taking the law, especially with such violence, into her own hands. Nay, as was her wont after such explosions, she quoted Scripture in support of her position! One day Miss A. gave her niece up to a certain hour to offer an apology when, failing its receipt, she threatened to make some startling revelations. The hour passing without the required *peccavi*, Miss A. carried out her threat, and displayed such diabolical vindictiveness, especially by endeavouring to sow discord throughout the entire family—distorting some facts and exaggerating others—that her continued residence in the house could not be tolerated. It was then proposed to provide her with a home in the country, where she would, it was hoped, be free from all sources of irritation, and regain her health which was somewhat below par. Miss A. preferred, however, to live in London which, she said, was more cheerful, and where she had friends. Her main object was to be within hail of the institution in which, notwithstanding the occurrence of so much that was unpleasant, she had found congenial employment and formed agreeable friendships. The attempt to regain admission ended in the disastrous way related at the commencement of this paper. The lady superior had always foretold, especially after the affair in the country, a catastrophe of the kind. Her words to a friend were, "Some day some one will have to deal definitely with Miss A., and a very troublesome and delicate business it will probably be."

Many more instances might be given illustrative of Miss A.'s unhappy disposition; but for her jealousy, envy, and inability or unwillingness to adapt herself to circumstances, she might at this moment have been living under the roof and loving care of relatives, whose home was thrown open to her at her mother's death. She wanted more power in the house, she said, and moreover was always imagining the existence of slights and affronts which were never intended. At length, on one occasion, in a burst of passion, she raised her hand against the lady of the house, which led eventually to her

leaving and finding a home elsewhere. Nevertheless, it was into this same home that she was received (as in fact she always had been throughout all her troubles) after the affair of the breakfast-tray—again to be removed for even greater violation of propriety than before.

The writer of this article has had many conversations with Miss A. He has known her almost from her infancy, and thoroughly understands her very peculiar character. She has more than once expressed to him her occasional strong inclination to murder some one, and a desire to be at those times put under restraint. It would appear that Miss A. had spoken in a similar strain in the presence of Miss C. in London, for it was a recollection of this, and a peculiar look in her eyes, that induced Miss C., on the occasion of the visit to the superintendent, to remain within call. Miss A.'s mental vagaries have usually been connected with physical debility; and catamenial irregularity, with sexual excitement, have been prominent factors in intensifying her irritability. The idea of suicide has frequently occurred to her, but she has never had the courage, to use her own words, to commit it, much as she wished to do so. She has suffered intensely from neuralgia, especially in the face; from a localised myalgia which, she has always insisted, was symptomatic of some deep-seated malignant disease; and from hepatic derangements. Hysteria has been a frequent accompaniment of other disorders, and Miss A. has been a great believer in dreams.

Remarks.—Again, we ask the question, "In the event of a fatal issue resulting from one of her furious onslaughts, would Miss A. be convicted of wilful murder?" In full view of all the facts above related, such a verdict would hardly be a just one. One of "homicidal monomania" would be more so; and, prevention being better than cure, it would obviously be wise to place her under skilled surveillance in order to, if possible, extinguish this homicidal tendency. There is no safety with such an inmate in a house. All would go smoothly for a time, and it might even seem that a valuable acquisition had been obtained in one, who not only promoted general cheerfulness, but whose religious influences were good for the family. Some day, however, an unexpected cloud would appear, showing that a sensitive chord had been touched, and giving promise, if the irritation were not allayed, of a stormy explosion.

It is not to be supposed that all persons with Eastern blood in their veins resemble Miss A. in character. Some of the noblest specimens of the human race are to be found amongst the Eurasians* of India, who, alas! too frequently

* The term Eurasian is applied, more especially, to the immediate offspring of a European father and native (of India) mother, or *vice versa*.

represent also, the very worst types. The educated ladies of the race, especially if well brought up, are, though somewhat lethargic, peculiarly attractive. They are often exceedingly pretty, with large lustrous dark eyes, of simple manners and confiding disposition. They sometimes sing sweetly, without perhaps much cultivation, but with great natural taste. They make loving though jealous wives, and ardent and yearning mothers. So intense is the affection for their children, that they would submit to almost any sacrifice rather than be separated from them; and it would seem as if their love for them and for their husbands bore an inverse ratio to each other. Whilst the former would rise towards boiling point the latter would incline to zero.

Never was the saying, "All is not gold that glitters," more truly illustrated than in these apparently unsophisticated children of nature; for, under adverse circumstances, the most unexpected traits of character are often displayed—the shy, fawn-like young wife developing, in the matured matron, into the sleek but unsparing tigress. She, who passes for an angel in society, is something very different at home. A hot temper is common, for the most part, to the Eurasian race; but, whereas in extreme cases, the cruelest remarks might be made, or murder even committed in a moment of passion, the keenest sorrow would be expressed immediately afterwards. The generosity which is usually found in the passionate, is not absent in the Eurasian. But, in Miss A.'s case, influenced it may be by the homicidal mania, revenge, with reference to those whom she hates, takes its place. With respect to others Miss A. is generous enough.

The Eurasians are fond of show, and are more influenced by the world's opinion than the Christian, with a *mens conscia recti*, should suffer himself to be. Much of their self-torment arises from the suspicion—most unfounded now-a-days as a rule—that they are looked down upon. They are always desirous, wherever possible, of marrying pure Europeans. However much the race may ultimately be benefited by these unions, it is very doubtful whether they always result in happiness to the individuals themselves, or of their immediate offspring. Speaking generally, the well brought up Eurasian makes an excellent member of society. A happy marriage, with those restraining influences which enable the right-minded to "bear and forbear"—in one word, practical religion—tends to keep in check and counteract the stormy idiosyncracies; and it behoves all who have to do with the

education of Eurasians, to study well their individual proclivities, and to bear in mind that the training of the emotions is, with them especially, more important than that of the intellect. The cultivation of the affections cannot, in their case, be too strongly insisted upon.

A Case of Paralysis Agitans in which Insanity occurred. By
RINGROSE ATKINS, M.A., M.D., District Lunatic Asylum,
Waterford.

In the course of the discussion on the paper by Professor Ball on "The Relations between Insanity and Paralysis Agitans," read in the Section of Mental Diseases at the International Medical Congress, I mentioned a case under my observation, in which the motor and mental disturbances then under consideration were associated, and as it would appear that but few cases of such an association of symptoms are on record, I have thought that it might perhaps be worth while to present to this meeting of the Medico Psychological Association a brief report of the case, with especial reference to the sequence of the mental derangement upon the motor disorder.

The subject of the disease, Richard Bowe, an unmarried man, now aged 61, has been an inmate of the asylum under my charge since August 2nd, 1877. Previous to his admission he resided in the county Waterford with his sister and her husband, and followed the occupation of a farm labourer. As regards any hereditary history of nervous disease no information is obtainable, beyond the statement made at his admission, that no near relative had been insane. The paralysis agitans appeared two years prior to the onset of the mental disturbance, and according to the tacit and seemingly truthful statement of the patient himself, began in this way. On an occasion, while in good health and circumstances, he became intoxicated, having at the time a five pound note in his pocket, which was stolen from him without his having been aware of it; when he subsequently put his hand in his pocket and found that it was gone, he says, "from the fright of it his hand began to shake," and continued so ever since, and thus the disease was initiated. After some little time, the trembling gradually increasing, he sought medical aid, which, however, proved unavailing to alleviate the trouble; he was, however, able to continue at work for some time after this, but the tremor steadily increased involving both upper limbs, and he began to experience sensations of "burning inside," and of his "heart coming up into his mouth." Becoming more and more incapacitated from following his usual avocation—that

of manual labour—he grew gloomy and depressed, from “shame,” he says, and sunk into a condition of despondency. He finally exhibited suicidal tendencies, attempting to hang himself, and was accordingly committed to the asylum, where he has since remained, there being no appreciable change in his condition, physical or mental, during the three years and a half that he has been under my observation. His present state may be thus described. During waking hours both upper limbs, the right more especially, and the lower portion of the face, are affected with constant tremor, the limbs are kept usually close to the sides semi-flexed, and the jerking is more noticeable in the forearms than above the elbow joints. The fingers of both hands are partially flexed on the palms, and are so rigid in this position that he cannot straighten them thoroughly; if forcibly extended they always return to the semi-flexed position; the thumbs rest against the forefingers, are extended, and in a state of constant tremor. Articulation is slow and indistinct, and sometimes considerably interfered with by the tremor of the lips and lower jaw. The shaking is at times much exasperated when the emotional condition, to be presently mentioned, is intensified, and on these occasions the morbid visceral sensations are heightened; indeed from the piteous complaints which he then makes of the “burning within him” and of his heart, it would seem that these visceral sensory disturbances form the starting point of crises which then involve the emotional state, which increases in turn, the motor disorder. The lower limbs have no share in the tremor, locomotion is not interfered with beyond the slowness of gait resulting from the shaking of the body generally, which the tremor in the arms brings about. There never has been any tendency towards propulsion or retropulsion. When lying still in bed the movements of the lower jaw almost cease, and the shaking of the arms considerably lessens, while when sunk in sleep the entire body is perfectly motionless and tranquil. The tactile sensibility does not appear to be effected; he says he is “hurt” when the points of the æsthesiometer are pressed on the skin, or if he is pinched, but his natural intelligence is low and his mental condition such that any reliable statement regarding the finer measures of sensibility cannot be obtained from him. The patellar tendon reflex is easily elicited and rather exaggerated than otherwise. *Mentally* he is usually depressed and lachrymose, though periods of brightness and contentment with partial subsidence of the tremor now and then come, his features then lose, to some extent, their downcast appearance. He is, however, even at his best highly emotional, and if spoken to, or commiserated with, his eyes readily become suffused with tears, and the arms shake with greater force and rapidity. He is by no means sullen or morose, and answers questions willingly so far as he can realise their meaning; his intellect, however, is of a low type, memory does not appear deteriorated, he can recall all the facts of his illness, and give a very lucid account of himself. He has no delusions, the morbid visceral sensations become sometimes so intense as to acquire

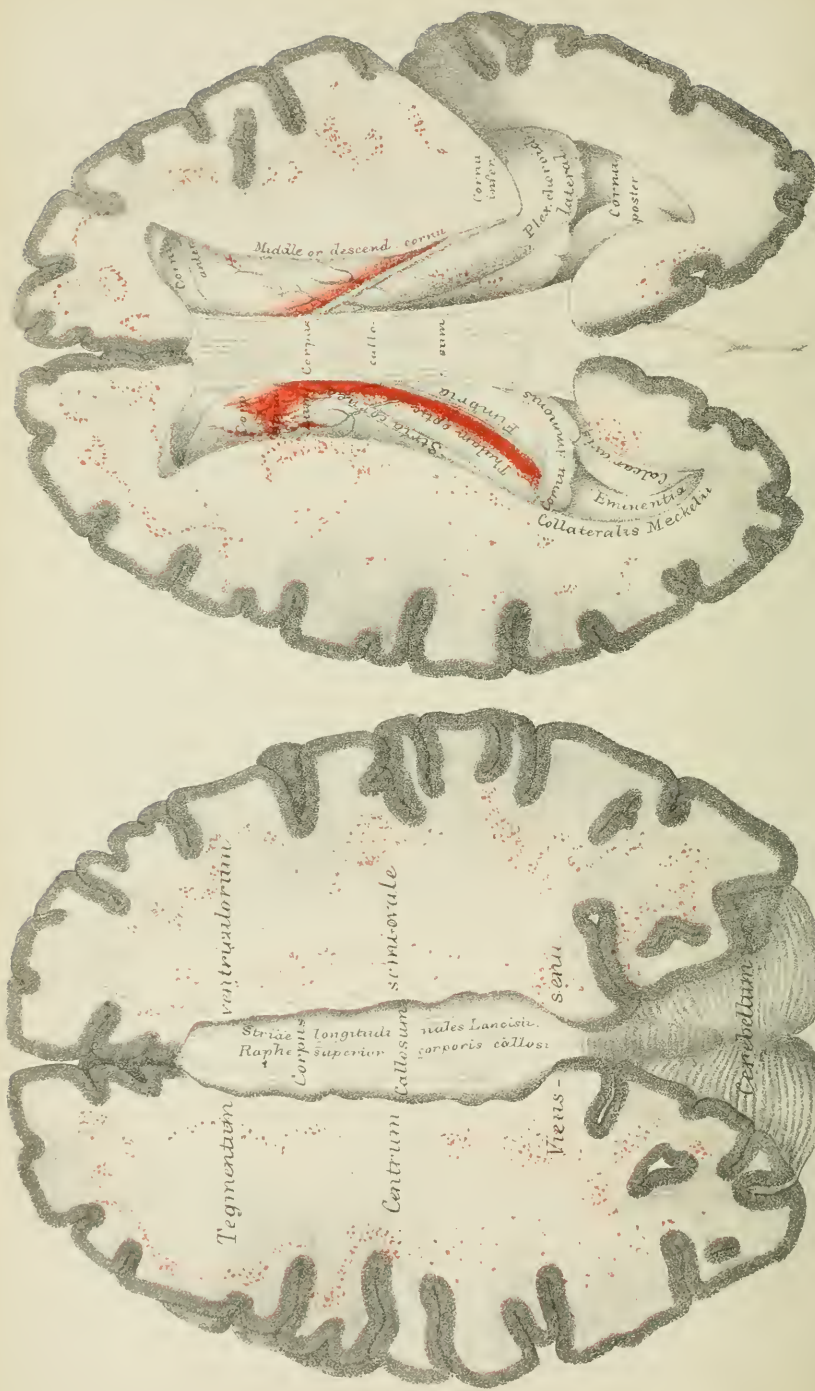
the character of true hallucinations. His organic functions are naturally performed ; beyond a slight muffling of the sounds, physical examination can detect nothing amiss with the heart. He eats and sleeps fairly well, is in good condition, enjoys open-air exercise, and though in general appearance depressed and lachrymose-looking, he does not seem to be really unhappy, and since he has been in the asylum has never betrayed any desire for, or made any attempt at self-destruction.

The interest in such cases as this mainly lies in the association of the particular motor disorder referred to, with the mental derangement, and their more or less intimate connection in the relation of cause and effect. As regards the paralysis agitans itself, it is, from the anatomo-pathological standpoint, as yet almost wholly unknown, the morbid histological appearances found in the cases already minutely examined, being either incongruous, or so diversified, both as regards localisation and nature, that they cannot be held responsible for the production of the symptoms. The most recently recorded cases, so far as I am aware, those by M. Demange ("Rev. Med. de l'Est abstr. in 'Rev. des Sci. Med.'") and M. Luys (Soc. de Biologie, "Gaz. des Hopitaux"), illustrate the difference in the localisation of the findings, but may not prove so incongruous as some of those previously recorded. M. Demange found, in sections of the cord, hardened in chromic acid, from a case of paralysis agitans which had been under observation for many years, a peri-ependymitis, with obliteration of the ependymal canal, an irritation of the posterior roots, sclerosis of the columns of Goll, and a very slightly marked disseminated interstitial myelitis at some points of the white antero-lateral columns. These microscopic findings agree in part with those recorded by Joffroy some years since (Soc. de Biologie, 1871). The obliteration of the ependymal canal cannot be regarded as of importance, as it is frequently found occurring without any special symptoms, and its pathological significance is highly questionable. M. Demange, however, considers that the ependymal inflammation and the pigmentation of the cells of the vesicular columns of Clarke, already noticed by Joffroy, to be important. They indicate that the inflammatory process is concentrated in the sensory system of the cord, and on its analogue in the medulla oblongata. No such condition has, under the circumstances, as yet been demonstrated, but M. Demange thinks such will be found there. If marked disorders of sensibility, such as anæsthesias, as in ataxia, are

not observed, it is because the morbid process in this disease stops short of actual sclerosis. There is a permanent excitation of the sensory roots causing, in a reflex way, automatic movements of the muscles enervated by the corresponding motor branches. These movements are unconscious, as they are not due to cerebral action. The Will still retains some control over the tremor, but if a hemiplegic attack occurs in a patient with paralysis agitans, so that the internal capsule is involved, it loses this power, the tremor then persists and is absolutely beyond the control of the will. As regards the lesions found, M. Demange does not hold that they are necessarily primary, but thinks the functional trouble may precede them for a considerable time, and this may be the explanation of the frequent negative findings in autopsies on patients dying from this disease. In the case reported by M. Luys the cells of the pons varolii were notably increased in size, while in their normal condition these cells measure from 20-25 micromillimeters in diameter; those from the case of paralysis agitans measured 40-45 micromillimeters, that is double their usual proportions. The condition of the medulla and cord is not here mentioned. In Parkinson's case an augmentation in volume, with induration of the pons varolii, of the medulla oblongata, and of the cervical portion of the cord is stated to have existed, but it is probable that no histological examination was made. Whatever may be the anatomical lesions of the disease, be they situated in the brain alone, the cord alone, or as is more probable, in both brain and cord, the clinical history of the affection has been clearly recognised and holds a well-established place since the classical description by Parkinson; it is one of the most chronic of the chronic affections of the nervous system, and while, when thoroughly established, it incapacitates the subject of it largely, from following manual avocations, it does not until the terminal period, often long delayed, render him a complete invalid or wholly lay him by. And we cannot, therefore, wonder that, as in the present instance, a man still hale and active, thus suddenly and strangely seized by a malady which gradually, but surely, rendered him more and more useless to those around him, while it in no way injuriously affected his general health, or prevented his going about as usual, should acutely feel his condition, and as he became more and more dependent for support on others, fall a prey to melancholy. The depression naturally following the interference with his occu-

pation in life, from such a tantalising cause as mere constant shaking of his hands and arms, and the consequent distress and anxiety would lead to deeper gloom, and the gradual increase of the motor disorder and lowering of nervous nutrition, enforcing the sources of irritation, might easily cause the mental disturbance to pass over into actual insanity, and so driven, as it were, to desperation by his hopeless condition, after several years of endurance, he finally sought refuge in self destruction. This, it seems to me, is the rational explanation of the sequence of events in cases where such motor disorder is associated with mental disturbance, and they are, of course, much more likely to occur, where the social condition and mental calibre of the sufferer is such as to prohibit the enjoyment of surroundings which might contribute to render life more bearable under the circumstances, and thus lessen the chances of subsequent mental depression and ultimate insanity. That the tremor in the case I have recorded, is still to some extent under the control of the will is evidenced, I think, by its lessening when a powerful and concentrated effort is made, and by its increase at the periods when the emotional condition becomes exalted, and the depression deepens, the inhibitory action of the higher centres being thus, as it were, for the time being, partially removed. The lower and functionally—at any rate—disturbed centres have fuller play, which is expressed in the greater rapidity and force of the tremor. The more acute perception, at such times, of the generally experienced morbid visceral sensations is, too, of interest. The statement of their being felt prior to any distinct mental trouble, and some little time after the onset of the tremor would seem to point to their connection with the sources of irritation giving rise to the latter, rather than to their being part and parcel of the melancholia which afterwards supervened, and of which, as is universally known, such morbid sensations are frequently the accompaniment. In connection with the localisation of the lesions, on which such morbid visceral sensations depend, it is interesting to note the recent observations of M. Luys, who found in a certain number of hypochondriacs, who have had during life either illusions or hallucinations of the visceral sensibility, that the networks of the grey central substance of the brain, which represent the localities of transmissions of impressions irradiated from the visceral periphery, were the seat of patches of hyperæmia of diffuse reddened spots, which indicate the persistent traces of foci of hyperæmia neatly localised. In these cases the walls of the third ventricle were





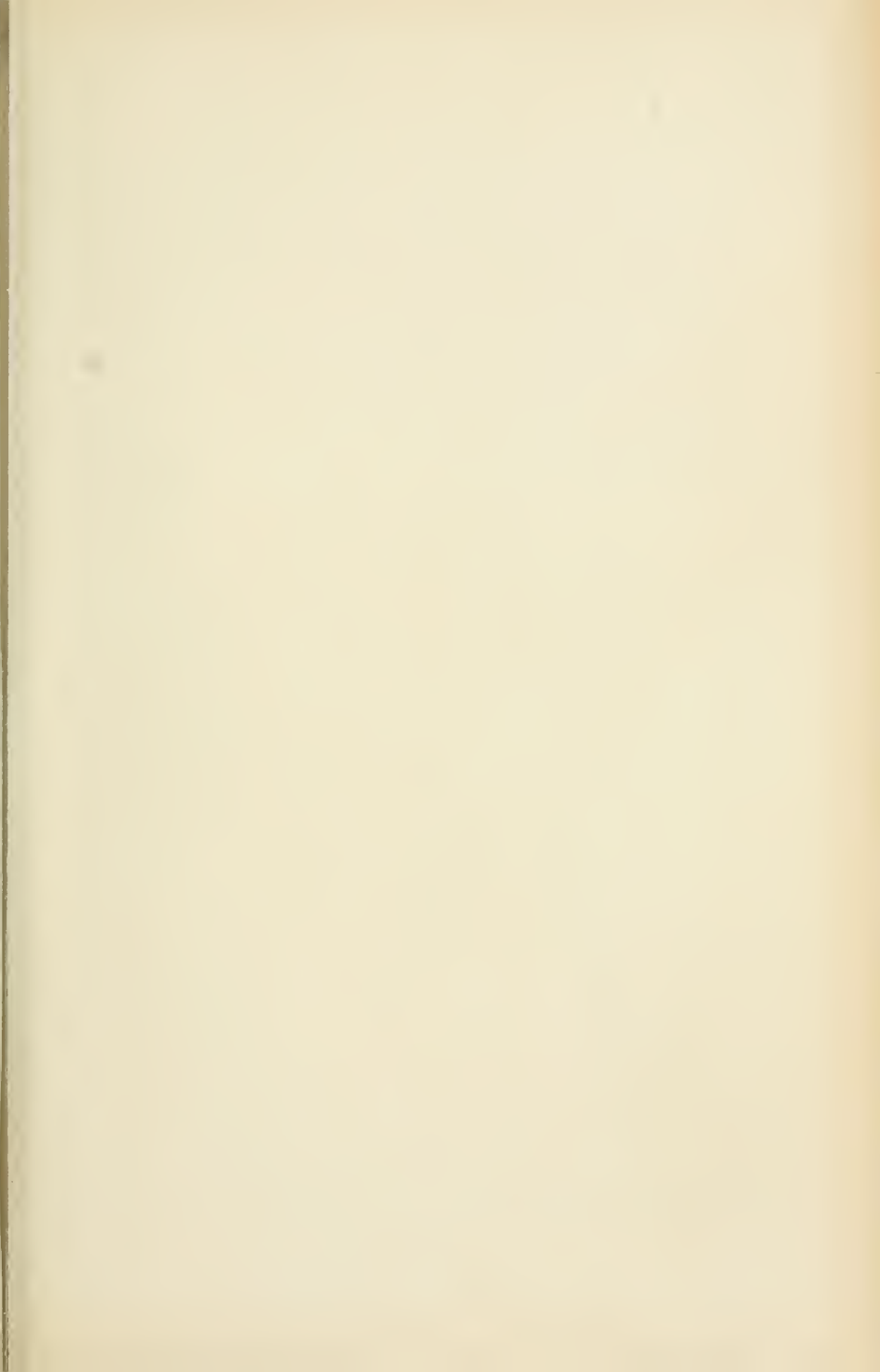
To illustrate Dr. Savage's case.

more or less rose tinted, and exhibited scattered discrete vascular striations, and here and there patches of very intense hyperæmia. In these pathological findings we have, as M. Luys points out, evidences of chronic hyperæmia, traces of old congestions in the central grey matter of the optic thalami, and third ventricle, and also similar traces of hyperæmia with concomitant degenerations in various portions of the cortex. These two centres of cerebral activity are found associated in their morbid conditions as in their functions. In the physiological condition it is the cells of the nuclei of the optic thalami that transmit to the various cortical regions the impressions that pass by their networks. In pathological conditions the same cellular elements enter into action under the influence of local excitation of persistence of certain vibrations and of special circulatory troubles and transmit to the cortex incitations created in themselves and having no connection whatever with the external world. These fictitious incitations are then dispersed over the receptive tracts of the cortex and produce in the sensorium the special sensorial disorders and appropriate emotional states. If in the present instance the morbid incitation, originating in sudden emotion, transmitted along the sensory tracts in the cord from the cutaneous periphery, and through the medium of the sensory central ganglia to the psycho-motor cortical centres, and there being reflected on the motor tracts downwards, set up immediately the motorial disorder. It is possible that the persistence of this process, and the continual irritation of the sensory ganglia might, in turn, give rise to the morbid visceral sensations in the manner just explained. This is, of course, hypothetical, but their co-existence here may render it of interest to note whether in further cases of paralysis agitans, the tremor is accompanied, after a longer or shorter interval, by morbid visceral sensations, apart even from any direct association with mental derangement.

Punctiform Cerebral Hæmorrhage. By GEO. H. SAVAGE, M.D.
(With illustration.)

The best pathologists have ever taught that man rarely dies from disease of one organ alone, and I would go as far with respect to the etiology of insanity. One cause is rarely enough to produce insanity, the physical and the mental reacting on one another in such intricate ways that we can only hope to attain to relative truth. The case I have to

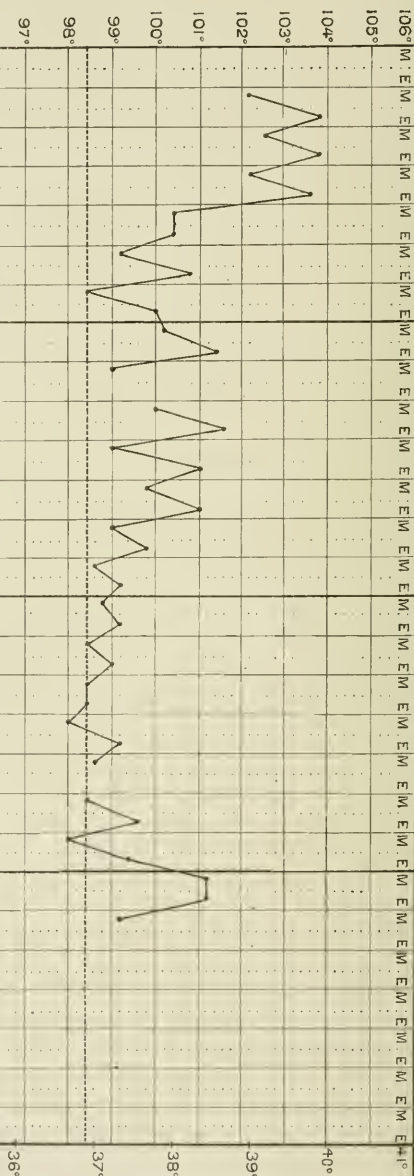
report is one in which both the insanity and the death may be said to have been due to an accumulation of small causes, not one being enough to cause the end, but the cumulation being too great to be borne. In this case the woman had suffered from some uterine disease ever since puberty, which had caused metrorrhagia. She had a brother who was insane, and who made a partial recovery. The patient herself had a previous attack, from which she made a complete recovery. In both the present and the former attack the symptoms were melancholic, with a strong hypochondriacal aspect. The patient had at one time suffered from symptoms of phthisis, but recovered. On admission this time she was weak in general health, and complained much of her head; said she felt worse than ever, she could never get well. She improved slightly, but was very dull. Shower baths were given, but had no good effect. Metrorrhagia returned, and she became weaker. She also would not stop in bed, and thus exposed herself to draughts and cold. On August 8 she was reported as having fouled her room, and she was sent to the refractory gallery. She was noticed now to be dull and all but insensible. She was again dirty; she rapidly became worse. Her temperature rose to 102, and later to 104; breathing rapid, with numerous rales. No marked dulness, though there was some on the left side. She was now quite insensible, without being able to be roused. She could not swallow, and nothing seemed to have any effect in stimulating her. Her breathing became worse, and she sank and died on the 10th. *Post mortem* we found the body well nourished; no signs of injury. The left side of the chest was dull, but not absolutely. On removing the calvarium, which was dense, the dura mater was normal in appearance; there was a noteworthy absence of fluid. On removing this the arachnoid was dry, and had a peculiar glazy look; the pia mater was pale and thin; there were many pacchionian bodies; the brain itself was pale on section. At once one was struck with the peculiar punctiform hæmorrhages following the line of the convolutions. This is well shown in the drawing made by me at the time. These spots were also seen in the deeper parts of the brain, and on opening the lateral ventricles one found there similar spots. In the left ventricle the corpus striatum was seen to be disorganized, and to be partly occupied by a clot of soft grumous blood. The membranes easily stripped. In the lungs there were emphysematous patches along the



JULY.

12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8

FAHRENHEIT'S SCALE.



CENTIGRADE SCALE

PULSE

M	108	104	96	98	92	88	100	94	106	104	108	106	110	104	100	96	104	106	100	100	118	126
E	114	120	114	98	106	112	100	—	120	112	120	114	118	106	112	104	104	—	120	116	130	

RESP.

E	28	26	28	28	28	24	28	—	26	24	26	22	24	24	26	24	20	—	26	29	34	38
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MOTIONS

NIGHT
DAY

URINE.

TONGUE

DIET

Day of
Disease*To illustrate Dr. Mc Dowall's Case.*

anterior edges. The left lung showed some pneumonia and some bronchitis, but neither was excessive. There was at the left apex a large scar, and also some cretaceous matter, as from changed tubercle. The liver was fatty, and rather wasted. The kidneys showed some cysts; the largest, near the pelvis of the left, was as large as a bean. In the uterus was a very large fibroid tumour, and in the dilated cervix clots of blood.

The most interesting points are the melancholic symptoms, with marked and old uterine fibroid, and next the sudden termination of what looked like being an ordinary case of chronic mental disease. The appearance is unlike any description I know of, but I have heard from one pathologist that he has seen something like it in early meningitis. The appearance of the membranes was very like that seen in the intestines in early peritonitis.

Cases Contributed by Dr. T. W. McDowall, County Asylum, Morpeth.

I.—Acute Atrophy of the Liver following Rötheln (?) in a Melancholiac (with Temperature Chart).

The following notes from the case-book give a very fair history of this most unusual and interesting case:—

A. B., æt. 52, widow, admitted 8th June, 1881, labouring under her first attack of insanity. She had, as a rule, good health, and was in comfortable circumstances, but during the last twelve months she has had much anxiety through her husband's illness and ultimate death five days ago. She is said to have been always of a fretful, anxious disposition. Three weeks ago she manifested delusions for the first time. She believed that some one was coming to hang her, and she desired laudanum with which to poison herself. The attack began with sleeplessness and depression; she cried constantly, "Oh, dear, what is to become of us?" During the last fortnight she took little food, but of late has eaten occasionally ravenously.

She has had three children; one died of dropsy, and two are alive and healthy. One relative (degree unknown) is said to have been insane, but not in an asylum.

9th June.—Since admission she has been quiet and depressed; has slept little, but taken food daily.

Physical condition.—Hair grey. Eyes brown, pupils normal, discs and fundus normal. Body well nourished. A few recent bruises (present on admission) on arms and body. Small cystic tumour of thyroid.

Lungs.—Inspiration rather harsh, and expiration prolonged at apices. No cough. *Heart*.—Sounds normal. Pulse 116. Nothing further calling for notice except that tongue is pale and clean.

Mental state.—She is quiet, grave, and preoccupied, but when spoken to, she converses moderately readily, and quite rationally. She is quite conscious of all going on around her; her memory for recent and remote events is good, and no delusions or hallucinations can be made out. She knows that she has been low-spirited, but cannot well explain the cause.

10th June.—Rather restless at night; quiet and depressed by day. Does a little knitting. Takes food fairly.

13th June.—Very grave and taciturn. Occasionally knits a little, but for the most part is idle and meditative. Takes her food well, and sleeps better than before. Pulse still rather fast. No cough; no complaint.

25th June.—No improvement.

5th July.—A little better. She does not appear so dejected, and is more industrious. Pulse now normal.

12th July.—Seems to be gradually improving. Smiled cheerfully this evening, and talked more freely and naturally. Bodily health seems better.

13th July.—Last night she complained of feeling sick and ill, and this morning, on getting out of bed, she fell in a semi-fainting state. The skin is flushed, the tongue pale and furred; no sore throat, cough, or coryza. No account of any rigour or shivering. Some headache, and some pain in abdomen, but no tenderness. No paralysis of sensation or motion. She has a dull, heavy look, and says she feels very weak. For pulse, &c., see chart. Ordered diaphoretic mixture and milk diet. She complains much of thirst.

14th July.—A vivid red rash, formed of fine papules, coalescing and leaving small whitish patches here and there, has made its appearance on face, neck, trunk, and limbs, but most abundantly on former. She slept little last night. Skin fairly moist. No cough or sore throat. Tongue somewhat cleaner, and thirst not so urgent. Very prostrate.

15th July.—At visit last night the eruption was very abundant. It had become confluent over thighs. To-day bowels are confined. Ordered Seidlitz powder. Rash fading slightly on face.

16th July.—Bowels moved about five times to-day. Temperature and pulse falling. Rash fading generally.

18th July.—Patient seems generally better, but feels very feeble. Temperature normal. Pulse 88. She takes plenty of milk, but no other food.

22nd July.—Some fresh eruption to-day on body and limbs generally, mottle and confluent. She complains of flying pains all over body. Along with this eruption there is a distinct yellow tint

of skin. This was slightly visible two days ago. Urine high-coloured. Bowels rather loose; motions pale.

23rd July.—Eruption very profuse and general. Jaundice well marked. Temperature has been high for the last five nights. She is very depressed, and says she will never get well. She is extremely weak and prostrate. Ordered ʒij of castor oil. Tongue not so dry, thirst gone, but she has no appetite. Takes milk only. No cough. Face flushed and slightly swollen. She says that her throat is a little sore.

27th July.—She has continued in much the same state since last note, except that the temperature has gradually fallen. Her body is generally covered with a profuse red eruption, slightly raised and confluent; quite distinctly visible in spite of the marked jaundice. Her motions have been very pale, and her urine like porter. She was ordered 3grs. of calomel every six hours yesterday. Since then the motions have become darker, and contain bile. For some days her tongue, mouth, and lips have been very sore. The appearance is as if the whole cuticle were off, leaving a smooth, glistening, exquisitely tender surface. The slightest movement of jaws or tongue causes acute suffering. This condition of the mouth cannot in any way be connected with the administration of calomel; it preceded it by several days. She continues very drowsy, prostrate, and depressed. There is no hepatic tenderness or swelling. No pain anywhere except in the mouth. Calomel to be repeated. There is a small superficial ulcer forming in the lower edge of the left corner, and there is some roughness at the same spot on right. Conjunctivæ very yellow, and congested. Skin of whole body is covered with a furfuraceous exfoliation of cuticle. To-day there were noticed a few dark clots of blood in her stool.

28th July.—Temperature normal. Patient looks a little better. No more blood in stool. Jaundice and eruption less marked. Mouth very sore; ordered a wash of borax, &c. She has taken more food to-day: milk and mutton broth.

29th July.—No special change.

30th July.—She takes a fair amount of nourishment. Still very depressed; says she will never get well. Jaundice intense.

1st August.—Her mouth is less sore. She says she feels a little better, but she does not look so. Skin dry, and peeling extensively. Rash almost gone. She has one motion daily, pale and thin. Pulse stronger. Temperature keeps low.

2nd August.—This morning she became rather suddenly faint and semi-conscious. Pulse almost imperceptible; respiration rapid and sighing. She revived after getting a draught containing spt. ammon. arom. and spt. ather. Soon afterwards she complained of great shortness of breath. Nothing special could be made out in the chest. Ordered small doses of whiskey-and-water. The temperature has risen again over 101°. Her general condition is evidently much worse.

3rd August.—Jaundice very deep. Even her tears are deep yellow. Skin very dry and scaling. No hepatic tenderness or swelling; no tympanitis; no pain in abdomen, or indeed anywhere except the mouth. No motion for two days. Urine sp. gr. 1020, acid; contains about one-third albumen, also bile pigment and acids.

She gradually sank. Respiration became rapid, 40 per minute, then gradually slower and deeper. She died at 1 p.m.

Necropsy.—42 hours after death. Body well nourished, but extremely yellow. No injuries. Rigor mortis has disappeared.

Head.—Bones dense and hard. Dura-mater deeply yellow on its external and internal surfaces. About 1oz. of yellow fluid escaped during removal of brain. Subarachnoid fluid deeply yellow. Brain weighs 45ozs. Membranes thin, transparent, and easily removed. No trace of atrophy of the convolutions, which are large and well developed. Lateral ventricles distended with yellow serum, and the lining membrane stained yellow. Choroid plexures contain several small cysts with gritty contents. The convolutions surrounding the posterior extremity of the right lateral ventricle are very soft and watery, especially internally. No atheroma of vessels. Grey substance of fair depth and colour.

Thorax.—About 2ozs. of yellow serum in pericardium. Aortic valves competent. Heart weighs 8½ozs. Externally it is bright yellow. Left ventricle contracted and empty; the right contains some dark fluid blood and some pale clots. The lining membrane of the right side of the heart is deep purple. Slight atheroma at the base of the aorta. Left lung somewhat adherent at the apex and posteriorly. 15¾ozs. Upper lobe emphysematous and dry; the lower slightly congested. Right lung firmly adherent at the apex and posteriorly. 35¼ozs. Slight deposit of tubercle at apex. Greater part of lower lobe, particularly the deeper parts round the root, in a state of red hepatisation; a portion sinking in water.

Spleen.—4¾ozs., normal.

Liver.—37¾ozs. Very soft. Firmly adherent all over its upper surface to the diaphragm. On section it is almost black in some places, in others bright scarlet or orange yellow. It is so soft and pulpy that the finger can be run through it in any direction. The left lobe is reduced to a mere thin flap, containing scarcely any liver substance. Gall bladder and duct quite normal. About 2drs. of dark, thick bile in former, and no gall stones.

Kidneys.—Right 5ozs. Capsule adherent; substance deep brown, and appears congested and inflamed. Left 6ozs. same state.

Intestines distended with flatus. Pale, hard feces in lower part of large intestine.

Uterus and ovaries normal.

Remarks.—From the very beginning of her fatal illness the patient's face gradually assumed a remarkable expression,

or rather want of it. The skin became more and more smooth and glistening, and all movements of the features ceased. The eyelids remained half closed, and the jaws were never moved except when something was swallowed. One can easily understand why the jaws were not moved—the great pain caused by the slightest movement in the mouth; but I am quite at a loss to explain why the whole of the face should have undergone such a change. The smooth, motionless surface gave one the impression of a cast in yellow wax.

In an asylum a physician has rarely the opportunity of observing examples of the eruptive fevers; he is consequently lacking in that extended experience which would be of assistance to him in determining the true character of an anomalous case. His want of experience embarrasses him doubly—in arriving at a correct diagnosis and in obtaining much assistance from medical literature. When the first eruption appeared I saw that it was not an ordinary one of measles or scarlet fever, though a medical friend unhesitatingly declared it to be the latter when shown the fully developed eruption on the second day of its appearance. Had sore throat been present, his conclusion probably would have been right; but there was next to none. Only once did the patient say that her throat hurt, and careful examination proved that there was no congestion. Besides, at first the patient swallowed without difficulty or any indication of pain. Measles were excluded by the entire absence of coryza, &c. In concluding that the disease was *rötheln*, I am aware that the diagnosis may be contested. My efforts to satisfy my own mind as to the real nature of the attack have only been partially successful. A careful perusal of the literature within my reach has done little beyond convincing me of the uncertainty which exists amongst the authorities as to the differentiation of scarlet fever, measles, &c. The confusion appears at present hopeless—witness the discussion on *rötheln* at the Medical Congress.

It should be remembered that in acute atrophy of the liver an eruption resembling roseola occurs in rare cases. Thierfelder says:—"Upon the skin there appear in rare cases, besides the icterus and the extravasations, circumscribed hyperæmias, like those of roseola, or somewhat larger, which spread sometimes over the principal portions of the surface of the body, and at other times are confined to the trunk or to the extremities."

So far as I know, this is the only case of acute yellow atrophy of the liver which has been observed in a lunatic, and on this account it appears worthy of record. The leading symptoms during life and the appearances after death were characteristic of the disease, and do not call for comment.

II.—*Acute Nephritis and Disintegration of Cardiac Clots.*

The following notes present in a condensed form the history of the case:—

E. R., æt. 50, was admitted to the Northumberland County Asylum in June, 1875, having been previously in the Carlisle Asylum for eight years. On admission he was described as a tall, muscular man, with sallow complexion and grey hair; body well nourished; heart and lungs normal, and generally a clean bill of health. His delusions were very marked, and to the effect that the medical officers came to his room every night and injected poison into him, broke his bones, twisted his joints, and prevented him from sleeping by pouring stuff on his bed. At every visit he was ready to show his collar or some other bone in evidence of the brutal treatment he endured at night, but though he used threatening and abusive language, he was easily pacified, and would then joke and laugh with his tormentors. It was often remarked that it was unusual to see a man with such well-marked ideas of persecution so good-natured and harmless. He remained quite idle till May, 1878, when he began to assist the charge attendant of his ward, and he soon became a most useful man. So he remained, unchanged in mind and in excellent bodily health, till the beginning of April, 1880, when it was noticed that there was some puffiness of the lower eyelids. His feet and legs were markedly œdematous, and his urine was scanty, smoky, and highly albuminous. As from his delusions physical examination and medical treatment were impossible, he was merely confined to bed and ordered a diet of three pints of milk and two of water daily. The quantity of urine at once increased, though his legs did not diminish in size. For some days he seemed to improve generally, the œdema of legs gradually subsided, and he passed as much as 60ozs. daily of smoky, albuminous urine. On the 10th April the urine had become clear and yellow, and the albumen was less. He had, however, a slight cough, with frothy expectoration. On 15th April his legs had again become very œdematous, and there was marked difficulty of breathing. There was abundant frothy, blood-stained sputum. An imperfect examination showed diminished resonance on both sides posteriorly, with some fine moist crepitation. At night especially the difficulty in breathing was very great, and so distressed the patient that he would not remain in bed or keep himself warm with blankets. He attributed all his sufferings to the attempts of the medical officers

to drug him to death. On several occasions dry cupping over the back afforded speedy and obvious relief. Large poultices round the chest also did much good.

On 21st April an attempt was made to reduce the great and general œdema by the subcutaneous injection of pilocarpine, beginning with $\frac{1}{20}$ gr. No sweating followed, but profuse salivation in about ten minutes. The same result followed several times with slightly increased doses, but that form of treatment had to be abandoned, as the patient objected vigorously. He continued so restless at night that he was ordered Tr. Cannabis Indic. m. 40. This usually procured him a few hours' sleep. His cough continued as troublesome as ever; the expectoration still copious and frothy, though sometimes rusty and streaked with blood. Hot baths were to be tried. His appetite remained fair; at his own request, he was allowed a pint of beef-tea and an egg daily. On 6th May he vomited his milk and egg, his cough was more troublesome, and the respirations more rapid. On 8th May his general condition was decidedly worse; he appeared more feeble, and his appetite was bad. A $\frac{1}{16}$ gr. of pilocarpine four times daily produced considerable sweating, but no amelioration in his state. The expectoration consisted of almost pure, bright, clotted blood. The urine continued fairly abundant, about 60ozs. per diem, but smoked, highly albuminous, with numerous hyaline casts.

On 11th May he was drowsy and delirious; next day his tongue was dry and brown, and he appeared moribund. Gin-and-water were given every two hours. On the 13th he had rallied considerably, and was quite conscious, though markedly drowsy. He said he felt much better; was much pleased at getting gin, and declared that he should have got it before. So energetic was he that he became very abusive, and called the medical officers murdering rascals. Now for the first time there was observed a small purple-grey spot on the tip of the nose, as if gangrene had supervened. On the 14th he was evidently failing. Next day the spot on the nose was as large as a sixpence. He was exceedingly weak and harassed by cough, and complained much of pain in precordial region and left hypochondrium. He was conscious, but drowsy. Though in such a miserable state, he managed to get out of bed during the night whilst the attendant was temporarily absent, and sat by the fire. Another small gangrenous spot made its appearance on the forehead.

He died at 2.30 a.m. on 16th May, after passing into a state of complete coma.

Necropsy.—Fifty-nine hours after death. Marked œdema of legs and trunk; considerable hypostatic congestion in dependent parts. There were no marks of injury, but there was a grey spot on tip of nose, and another, not so well marked, on forehead. The scalp was œdematous, thickened, and congested, the blood being bright red. The membranes of the brain were thin, transparent, œdematous, and

stripped readily. The visceral layer of pia mater was adherent to parietal layer by old fibrous bands. Subarachnoid effusion considerable.

Brain weighed $51\frac{1}{4}$ ozs. There was slight general atrophy of the frontal and parietal convolutions, and most marked about the superior and inferior parietal lobules on each side. There was a distinct patch of atrophy, about the size of a small walnut, at the inferior surface of anterior extremity of third frontal convolution. The brain presented nothing further unusual to the naked eye.

Thorax.—Pericardium contained about 2 ozs. of clear yellow serum. Heart large, and covered with considerable quantity of fat; weighed $22\frac{1}{4}$ ozs. All the cavities contained dark fluid blood, dark post-mortem clots, and large decolourised ones. In addition, the apex of each ventricle was occupied by a very tenacious clot, whose yellow-grey colour and firm texture clearly distinguished it from the others in the cavities. When cut across they were found to be honey-combed by small cavities, about the size of a pea, containing a sanious, puriform fluid, evidently the clots in the process of disintegration.

The right ventricle was dilated, and walls very thin; the left also dilated, but hypertrophied. Aortic valves incompetent. Right aurico-ventricular opening much dilated.

Lungs.—Left weighed 24 ozs.; congested and œdematous. A large quantity of turbid yellow serum in pleural cavity. Right weighed 27 ozs. No fluid in pleural cavity. Generally congested and œdematous. Posteriorly at base was a pulmonary apoplexy as large as an orange, firm, and almost black. The pleura over it was covered with a thin layer of recent lymph, and was adherent to the costal layer.

Abdomen.—Liver weighed 72 ozs., markedly congested. Kidneys: Left, $9\frac{3}{4}$ ozs.; cortical substance brilliantly red, the pyramids deeply congested, and almost black. Capsule adherent; when detached it left a rough, brown, mottled surface. Right $10\frac{3}{4}$ ozs. in same condition, and contained a cyst. Spleen 4 ozs., normal.

Remarks.—The record of this case is manifestly imperfect, but it is necessarily so, as satisfactory physical examination was impossible, and anything worthy of the name of medical treatment could not be carried out. But there are two points of interest to which I would direct attention. The first is the condition of the kidneys. As is well known, acute nephritis is exceedingly rare in the insane; the present is the only example in my experience. In connection therewith it may be well to direct attention to a paragraph in the manual of psychological medicine by Drs. Bucknill and Tuke, 4th edit., 1879; it is as follows:—"The kidneys are remarkably free from disease in all the forms of insanity, and the changes which give rise to albuminous urine are especially

rare in them. We have only met with three instances of decided Bright's disease among the insane; and upon inquiry in other asylums, we have found that the experience of others has been of a similar nature. Prior to observation, we should have expected Bright's disease and insanity to have been frequently concomitant, on account of the common influence of intemperance in the production of the two disorders; or even that the former might be the occasion of insanity, through the influence of its accompanying anæmia, and the toxic action of unsecreted urea upon the brain." Griesinger is then quoted to the effect that "Bright's disease is exceedingly rare amongst the insane as a primary affection, but the slighter forms which accompany the various marasmatic states are naturally common." He wrote this twenty years ago, at a time when the true significance of renal cirrhosis was not well understood. Atrophy of the kidney is not only a disease of old age or decrepitude, but is found exceedingly frequent in all forms of mental disease independently altogether of the mode of death. True, extreme cirrhosis is comparatively rare, but a moderate amount of it is, in my experience, very common. Its existence has, I believe, a most important bearing on the mental and intercurrent diseases of the insane, and explains in great measure why the latter are so serious and so rapidly fatal. We are in the habit of attributing such results to a "diminished vitality." There may be some truth in the somewhat vague phrase; but I believe that the true source of the evil is in the kidneys. This is not the occasion to go into this important matter in detail, but I ask asylum physicians if it is not the fact that contracted kidneys are more frequently found in the post-mortem room than healthy ones.

Passing now to the second point of interest, the softened cardiac clots, I may state that they are the only ones in my asylum experience, though more than once I have found old, firm, and organized clots in the auricles or their appendages. Dr. Bristowe, in his papers in the "Transactions of the Pathological Society of London" (vols. 7 and 14), has so thoroughly settled the mode of their formation and subsequent disintegration, that it is sufficient to state that my case entirely supports his views, which, indeed, are those now universally accepted. He, however, takes no notice of those cases where the clots have become so softened that the pus-like fluid in their substance escapes, and entering the circulation, produces effects corresponding to its quantity. There

can be no doubt that cases having ultimately many of the characters of pyæmia are due to this cause. It appears to me highly probable that the small areas of gangrene seen in my patient were due to the escape of this matter, or to the detachment of microscopic portions of the clot which were arrested at the very extremity of the arterial circulation. The walls of the clots were so thin in several places that it is to be wondered that they were able to withstand the pressure of the cardiac contractions.

From the observations of Virchow and others there can be no doubt that the pulmonary apoplexy had its origin in an embolism from the right side of the heart. Being of some standing, it became, as has been so often observed, surrounded by a slight amount of inflammation, which on its pleural side was indicated by the effusion of lymph.

This case may be of more interest to general medicine than to our speciality, but on that very account I have recorded it for the benefit of my co-workers.

III.—*Foreign Bodies in Colon.—Abscess pointing through Thoracic Wall.—Localised Emphysema.—Pyæmia.*

We are well aware that one of the most common habits of the insane is rubbish eating. Certain patients, chiefly chronic, degraded demented, swallow whatever they can, and it is surprising that we observe evil results so seldom. Had, therefore, this case been one of an ordinary kind, it would have been unnecessary to place it on record; but it presented during life several features of great interest to the physician in regard to diagnosis.

J. W. was admitted to the Northumberland County Asylum twenty-two years ago, and was then 31 years of age. He had been in a private asylum for several years, and was, what he continued to be, an incoherent, mischievous demented, occasionally dirty in his habits. He enjoyed excellent bodily health. There is no fact in his history calling for special notice till 27th December of last year (1880). Whilst being bathed it was observed that he had a small, tender spot on the left side between the eighth and ninth ribs in a line with the axilla. With great difficulty it was elicited from him that he had fallen on the edge of his bed. The probabilities were that he had broken a rib; but there was no crepitus, and the swelling was rather between the ribs than on them. As a precautionary measure, he was kept in bed for about a fortnight. One day he had a great rise of temperature, a rigour, and subsequent sweating; but these untoward symptoms never returned. The swelling and pain disappeared; the

patient was in his usual excellent health, and his physicians were much puzzled by the symptoms.

On 12th August of the present year he was reported to be very feverish. On examination swelling was detected on the former spot, and as his temperature was 104° , he was at once transferred to the sick ward for careful observation. Most minute examination failed to detect anything wrong in any of the cavities, except that the left chest was decidedly contracted, as if from chronic pleuritic adhesions, and that it moved *en bloc*. Movement caused the patient considerable pain, but moderate pressure did not. When he got out of bed he moaned, and placed his hand on the tender spot. At evening visit the temperature had fallen even below the normal, and he had taken a good supper. So he continued for several days, apparently quite well in every respect. The slight swelling between the eighth and ninth ribs did not change, and I am not ashamed to admit my total inability to arrive at a satisfactory diagnosis.

At morning visit on the 22nd the attendant reported that the patient had had a severe shivering fit, and had taken no breakfast. When visited he was perspiring profusely; his temperature was 100.2 , his tongue was furred, and his general appearance was decidedly worse.

By the 25th these symptoms had so developed that there could be no doubt of the existence of pyæmia. The rapid variations of temperature first led to this diagnosis. There were also distinct rigours once or twice in the twenty-four hours, followed by hot and sweating stages. The skin was markedly icteric. As if further to complicate the diagnosis, slight emphysema was detected at and immediately surrounding the painful spot. It was now surmised that some collection at the base of the left lung was on the point of escaping. Next morning, however, though some slight emphysema continued, all swelling had disappeared. An exploratory needle was inserted, but with negative results.

On 28th August he was decidedly worse. The tongue was dry and furred. Pulse 100. Resp. 34. Temp. 101.4 . He would take no solid food, but drank milk with avidity. To ascertain the effect on the temperature, he was ordered 4grs. of quinetum three times a day.

No effect was produced on the rigours, but the temperature was rapidly lowered to 95° in the morning and 94.8 in the evening of the next day, when the use of the drug was discontinued.

The patient died on the morning of 31st August.

Necropsy.—Twenty-six hours after death. The body was free from bruises and bedsores, but there were numerous traces of small scars. Some of them resembled those seen on the back of a soldier who had been flogged. Hypostatic congestion well marked. Skin of abdomen greenish yellow. Where the punctures were made there was slight swelling of a greenish tint, as if putrefaction had begun; and there were indications of a few drops of bloody fluid having escaped. Rigor mortis well marked.

Head.—In frontal region the external surface of dura mater was slightly wet with a pale yellow fluid. The whole internal surface was in the same condition, just as is seen in fatal jaundice, but not so deep in tint. The brain weighed 47ozs. There was no thickening or opacity of the membranes. They were not adherent, but stripped with difficulty. The convolutions were slightly atrophied in the frontal and parietal regions, and there was a corresponding amount of subarachnoid fluid. The vessels were not atheromatous. On section there were the usual appearances of chronic brain disease, hypertrophy of the minute arteries, &c.

Thorax.—The pericardium contained about 2ozs. of yellow serum. The cardiac valves were competent; the muscular substance soft. There was no atheroma of aorta, and only a trace on the mitral valves. The cavities contained bright yellow, moderately firm clots, largest on the right side. Organ weighed 12ozs.

Right lung firmly adherent by old fibrous tissue. The left pleural cavity contained 6ozs. of clear yellow serum. Both lungs normal.

Abdomen.—Deep in the left hypochondrium, and attached laterally and posteriorly to the diaphragm, but moderately free in other directions, was a swelling slightly larger than the clenched fist, growing out, as it were, from the junction of the transverse and descending colon. It was doughy, irregularly lobulated, and in its substance there could be felt the sharp ends of several hard bodies. On cutting down on these, they were found to consist of wood and wire, nine in number, and from three to five inches in length. From the same spot there were removed several pieces of stocking and ticking, a small quantity of what appeared to be leaves, and two or three ounces of rubbish which was not minutely examined on account of the atrocious smell. These articles lay in the bowel, imbedded in fæces, but the larger ones projected through it posteriorly, and lay in a mass of thickened material. This new formation consisted largely of small purulent cavities, and these cavities communicated on the one hand with the bowel, and on the other with the spot between the eighth and ninth ribs, having first penetrated the diaphragm, but without opening into the pleural cavity. There was no indication that the foreign bodies, or the inflammation and suppuration around them, had in any way interfered with the function of the gut. There was no dilatation of the transverse colon, or hypertrophy of its muscular coat.

Liver.—The structures at the fissure were matted together, and surrounded by some thickening. The portal vein was markedly distended, and when it was cut across much blood escaped. Its appearance was unusual. It was changed in colour, and contained innumerable small yellow masses, exactly as if largely mixed with pus. The liver contained a great number of small purulent deposits arranged like very young grapes, the branches of the portal vein being the stems. The large branches of the vein contained firm, tough, yellow clots.

No further examination was made on account of the intolerable stench.

Remarks.—These need be few, and only refer to the diagnosis—1st, of the original lesion; 2nd, of the pyæmia.

Was it possible to diagnose a small collection of rubbish surrounded by numerous small, suppurating cavities, deep in the left hypochondrium? Under the circumstances, I think not. There was throughout an entire absence of localising symptoms, and physical signs gave entirely negative results. The left chest was contracted, and moved *en bloc*, it is true, but beyond these facts there was no indication of anything wrong with that cavity. Empyema was, therefore, excluded. Abscess of the left lobe of the liver was also excluded, as such percussion as could be effected gave no enlargement of hepatic dulness. It must be admitted, however, that percussion of his abdomen was not a very satisfactory proceeding, as he usually contracted the wall until it was quite hard. When the localised emphysema appeared, it was conjectured that there might be an internal abscess connected with a rib and communicating with the lung, or that an abscess had formed in the lung and was pointing externally, having made its way through the diaphragm. But these were simply conjectures, and were dismissed, because there were no constitutional symptoms before the pyæmia declared itself, and the results of the puncture were negative. The case, therefore, ended without the original lesion having been discovered.

The diagnosis of the pyæmia was comparatively easy, though from the irregular way in which the symptoms appeared, there was some difficulty at first. This difficulty was increased by the fact that the patient had what must now be considered a characteristic pyæmia rigour eight months before. This would not have obscured the diagnosis had I been aware of a fact mentioned by Mr. Erichsen in his admirable article on pyæmia in his "Science and Art of Surgery," p. 560, 6th edit. He there states that "a single rigour only may occur, and the disease pass off." The thermometer settled the diagnosis. Through an unfortunate misadventure, I am unable to give the temperature chart. The variations, however, were most characteristic, ranging on one occasion from 104·6 to 96 in less than twelve hours. As Erichsen and others have pointed out, if thermometric observations be made often enough—at least four times in the twenty-four hours—it should be impossible to fail to recognise pyæmia, or to confound it with ague, as has been done, especially in puerperal cases where the disease may not be acute.

One word as to the pyæmic deposits. They were found only in the liver, and their arrangement corresponded exactly to that described by Erichsen—"When, however, they occur as primary abscesses without any deposits in the lungs preceding them, they may appear as simple collections of pus, having a more or less branched arrangement." After a perusal of the literature of the subject, I now much regret the omission of a microscopic examination of the blood and yellow clots in the portal vein. It could not be expected that an examination of a single case, however careful, could settle the various disputed points relative to their real character, but it would have gone far to complete the record of a most interesting and unusual one.

OCCASIONAL NOTES OF THE QUARTER.

Moral or Emotional Insanity.

We are desirous of directing the attention and enlisting the help of our readers from time to time in regard to subjects of special importance, the elucidation of which can be best secured by concentrating the attention of a number of observers at the same time on the same object of research, and accumulating by this means a large number of clinical facts from the wide experience of mental physicians. At the present time we take the disputed question of Moral Insanity. In the July number of this Journal there appeared an article on the subject which may serve to form the first of those contributions towards its study and illustration which we now solicit. In the present number will be found the report of a case of ungovernable temper and homicidal violence, illustrating the influence of race, forwarded to us for publication, the writer desiring that his name should not appear. It is one of the difficulties which attach to the discussion of this alleged form of mental disorder that the particulars of a case cannot, in many instances, be properly given to even the medical world. Publicity would often entail unwarrantable annoyance or suffering upon the friends of the patient, and, indeed, might sometimes divulge criminal facts which would blast character and lead to legal proceedings.

One condition is essential to the value of cases contributed to this Journal illustrative of Moral or Emotional Insanity—

that every effort should have been made to discover the presence of delusions, hallucinations, or mental weakness. Unless these symptoms are absent after being carefully sought for by competent observers, the case cannot be regarded as one of Moral Insanity.

At the same time—although this must be clearly understood to be of fundamental importance—we are anxious to record as many cases as possible of forms of mental disorder in which the intelligential disorder was at a minimum, and the emotional at a maximum degree of intensity. In such cases there is, at least, a difficulty in proving beyond the cavil of the superficial observer, or of legal casuistry, or of public opinion, that the patient is insane, and a still greater difficulty in convincing the uninitiated that restraint is necessary, especially if no act of violence has yet been committed. The prominent and characteristic symptoms are emotional, not intellectual. Such cases, even if the alienist detects slight mental weakness (a weakness probably common to a large number of persons who, unless emotional disorder is superadded, would never be regarded as *non compos*), are of the greatest importance, whether the peace of family life, the prevention of crime, or the repute of the alienist physician in courts of law be considered.

It is hardly necessary to add how important it is that the causation of moral derangement should be carefully investigated and reported, including heredity, and racial proclivities, epilepsy, or allied symptoms.

The "Open-Door" System.

I have to thank those gentlemen who have, with so much courtesy and kindness, responded to my appeal for further and more detailed information with reference to this important item of asylum management, and to express my satisfaction that it has elicited such distinct and unmistakable evidence of its practicability and value under certain conditions.

But I regret that this evidence has, thus far, failed in satisfying my inquiry on the point upon which I was specially desirous of acquiring information.

My first question, which was the basis of most of the others, was this—"Has the 'open-door' system been tried in a mixed asylum, or in asylums exclusively for patients of the private class, and, if so, with what results?"

Now, with the exception of a short reference by Dr. Batty Tuke to its adoption in the private asylum at Saughton Hall, to which I shall have occasion again to allude, there is no word with regard to its use in asylums for private patients in any of the communications with which I have been favoured.

The whole of the evidence illustrates its applicability to that class of persons only who, from the previous habit of their lives, could be largely induced to engage in physical labour, as at the Lenzie, Fife and Kinross, Midlothian and Peebles Asylums, whose valuable experience is quoted. Dr. Rutherford, whose success in this direction has been the most marked, tells us that, at the Lenzie Asylum, his patients are employed in out-door work for eight hours a day, and for an hour and a half before breakfast in manual labour within doors; and the Commissioners in Lunacy, at their visit in September, 1880, report that out of 486 patients only 77 are not usefully employed, and they, without exception, because of physical incapacity.

It would, therefore, appear that as regards asylums for pauper patients, where, what I may term, the labour test is vigorously enforced, the "open-door" system is both feasible and productive of excellent results; and there would probably be a general concurrence in the arguments, which are lucidly put forth in the recently published report of the Commissioners in Lunacy for Scotland, with reference to the advantages which result from removing unnecessary restrictions upon the liberty of insane patients.

With a liberal supply of efficient attendants, and with only a nominal residuum of unemployed among the patients, the "open-door" system may be said to be demonstrably a practical possibility, although Dr. Cameron admits that seclusion in single rooms *may* have to be more frequently resorted to.

But with reference to private patients of good class, the Scotch Commissioners, in their highly interesting summary of "recent changes in the modes of administering Scotch asylums," strike the keynote of a great difficulty in the words of the heading to a long section. "The industrial system cannot be adapted to all classes of patients."

Any one who has had lengthened experience of asylums for private patients cannot fail to have been made aware of the unfortunate truth of this statement, or to know that one of the greatest obstacles to the extension of a system such as

that under discussion to private patients, without distinction of class or case, is presented by this circumstance.

Before writing my string of questions for the "Journal of Mental Science," I had already, as Dr. Dunlop recommends, carefully read the several reports of Drs. Rutherford, Tuke, and Frazer, the paper in the "Fortnightly Review" by Mr. Scott, and the various official contributions of the Scotch Commissioners to the literature of the "open-door" movement, and I had satisfied myself that for pauper patients, regularly employed in active physical labour, the system was practicable under selected conditions, and with certain limitations.

But what I was in search of, especially, was evidence, if any was forthcoming, of its applicability to patients of the private class, whose only physical occupation—speaking broadly—must necessarily be some form of amusement, and whose education has been such as to have developed a strong individuality and a habit of non-obedience, which would give colour to diseased manifestations and intensify the various propensities upon which so much of the difficulty in treating insane educated persons depends.

Of this evidence I am still in need, for the experience of Saughton Hall merely tells me that no locks are required by day for 57 private patients of mixed mental conditions, who are in charge of 62 officials, of whom 32 are attendants and 27 in and out-door domestic servants; or, excluding the latter, who bear the proportion of more than one attendant to every two patients. With such a staff, almost any system would be practicable.

In thus endeavouring to comment upon the evidence which has been elicited by my appeal, I would claim to be regarded as, in no sense, an opponent of the "open-door" system of treatment, in which I am convinced there is a large element of good, which is capable of showing, and has, indeed, already shown, that much further progress may safely be made in our efforts to limit the restrictions of asylum life, and bring it into closer relation to that which prevails in the homes from which our patients are derived.

In all well-managed asylums it has, of course, long been the custom to adopt the *principle* of the "open-door" system with respect to certain classes of the patients: in leave of absence on parole; in the restriction of the use of airing courts within the narrowest limits; and generally in the avoidance of all avoidable irritating and suggestive restric-

tions. But the gradual experience of the "open-door" system will probably show us that we may proceed further in this direction, even for private patients, and still continue to secure their safety while we render their necessary seclusion much more tolerable.

FREDERICK NEEDHAM.

The Case of Lefroy, alias Mapleton.

Concurring, as we do entirely, in the propriety and justice of the decision arrived at by the Home Secretary in the case of Lefroy, and believing that no sufficient ground was shown for interfering with the ordinary course of law, the remarks that we have to offer upon this case are necessarily few.

It will be remembered that the murder of Mr. Gold, whilst travelling by train from London to Brighton, occurred on the 27th of June, and that Lefroy's trial did not take place until November. The prisoner had the assistance of an active and energetic solicitor, as well as of an able and experienced counsel; but, notwithstanding the abundant opportunities thus given for the careful preparation of the defence, no attempt was made at the trial to adduce evidence of the prisoner's insanity. His counsel, indeed, expressly repudiated the idea of doing so; and yet he must have been well aware of the weakness of the defence upon any other ground, in spite of the protestations of his client. Having regard to this repudiation, by the prisoner's counsel, of the plea of insanity, after so long an interval in which to carefully consider and decide upon the point, we feel, holding the view that we have already expressed, that there is hardly anything more for us to say upon the matter. Not only may we rest assured that no material facts calculated to weigh in the prisoner's favour were lost sight of by his legal advisers, but we must also remember that the persistent attempts on the part of the prisoner to conceal his crime and to escape from its consequences were evidences of a condition of mind widely different from that in which the physician can fearlessly interpose, and ask the law to stay its avenging arm, not only on the ground of pity towards the accused, but also on the ground of the uselessness of punishment, by reason of the insusceptibility to its terrors of the culprit. The very cunning and ingenuity and solicitude on the part of the prisoner in the present case, to escape from the consequences which the law of his country

decrees for the crime that he had committed, may be fairly regarded as forming, in this case, almost sufficient proof in themselves of the existence of a state of criminal responsibility.

"Criminal responsibility," says Casper, "is the psychological possibility of the efficaciousness of the Penal Code."

It is not a question of disputing whether the existing penal code has or has not, with respect to the community at large, any efficacy in restraining from crime. We trust that it has, or, as good citizens, it would be our duty to endeavour to induce our legislators to introduce such modifications into it as would imbue it with such efficacy; but, putting to ourselves the question whether there existed in the case of Lefroy such mental defect as to destroy the possibility of any restraining influence being exercised by the penal code of England as it at present stands, we can come to no other conclusion than that his conduct gave a very decided negative to such a question.

It is needless to add any observations with respect to the wild theory that the prisoner was the subject of homicidal mania. The rumoured confessions upon which this theory was started were manifestly untrue on the face of them, and they were quickly acknowledged to be so; but whether this acknowledgment had been made or not was of no consequence, inasmuch as it was simply impossible that the published statements with respect to the alleged commission of other murders could have been true. Moreover, murder, with a view to robbery, is incompatible with what was meant by Esquirol and other medical writers by the term homicidal mania. Pure and uncomplicated homicidal mania, if the term be taken to imply an insane and uncontrollable desire to take human life, with no idea of gain or revenge or spite, and unassociated with any insane delusion, or with any other mental derangement, such as melancholia or delirium, or the so-called furor epilepticus, is, happily, an exceedingly rare form of mental disease, and most assuredly the name of Lefroy cannot be added to the list of authentic cases under this heading.

PART II.—REVIEWS.

Thirty-fifth Report of the Commissioners in Lunacy (England and Wales), for the Year ending Dec. 31, 1880.

Of the various departments of the public service of this country probably none has been the object of more liberal and indiscriminate abuse than that which is administered by the English Commissioners in Lunacy.

The accusations have embraced especially the supposed adherence of the Commissioners to an antiquated and inelastic system, and their opposition or apathetic indifference to modern advances in treatment or suggestions for sweeping alterations in the law, their want of personal knowledge of patients, and their too friendly demeanour to the superintendents of the asylums which they officially visit. For obvious reasons the Commissioners are practically precluded from meeting charges such as these, especially when they are made informally and anonymously; and although most of them are so absurd as to carry with them their own confutation, it seems to be but fair, in reviewing the results of their labours during another year, to state that these results, as recorded in their reports, and in the improved state of asylums generally year by year, afford the best answer to charges which a fuller knowledge and a more equitable discrimination would have altogether prevented being made. The blue books, as a series, give the best assurance that the legitimate functions of the Commissioners have throughout been honestly and earnestly discharged, to the benefit of the insane, and with such improvement in their treatment as has made it able to bear a favourable comparison with that of any other country.

No doubt much of this result has been due to the discretion with which sudden revolutions have been rendered unnecessary by a gradual process of transition, no less than by the satisfactory relation which has been cultivated between the Commissioners and those whom it is their business officially to supervise, to whom, as gentlemen, they are able to show the courtesy of gentlemen without diminishing their vigilance as critics, or suffering any sacrifice of official dignity.

Their report for the past year, to which we desire now briefly to draw attention, in addition to the usual statistical information, and records of work and its results, contains

a critical analysis of the Lunacy Bill which was introduced by Mr. Dillwyn in the last session of Parliament, to which we shall further refer.

The number of registered lunatics on the 1st January, 1881, in England and Wales, was 73,113, or 1,922 more than at the same date in the previous year, in the proportions of 121 private patients and 1,801 paupers.

The average annual increase of the last ten years has been 134 and 1,513 respectively, so that there is this year an apparent disproportionate increase. But the report tells us decidedly that this is fully accounted for by the diminished death-rate in asylums, hospitals, and licensed houses, the deaths among private patients having been 119, and those among paupers 449, fewer than in the previous year.

A new table is given in this report, showing the yearly ratio of fresh admissions to population, from which all transfers and the admissions into idiot asylums have been excluded.

It does not show the number of *persons* admitted into asylums during the year, but only the gross number of *cases*; and to this extent it fails accurately to register the actual increase of lunacy, because, as an accumulation of patients goes on, the admission into asylums of relapsed cases will become multiplied into itself, and so assume a more influential position year by year. It affords, however, a reasonably accurate test; and the following summary of it will be of permanent interest:—

			RATIO PER 1,000 OF ADMISSIONS TO POPULATION.		
			M.	F.	T.
1869	...	...	4·88	4·55	4·71
1870	...	...	4·60	4·48	4·54
1871	...	...	4·77	4·47	4·62
1872	...	...	4·67	4·51	4·59
1873	...	...	4·86	4·73	4·80
1874	...	...	5·17	4·90	5·03
1875	...	...	5·32	5·07	5·19
1876	...	...	5·39	5·21	5·30
1877	...	...	5·45	5·12	5·28
1878	...	...	5·50	5·24	5·36
1879	...	...	5·17	5·23	5·20
1880	...	...	5·13	5·25	5·19

With reference to this table the Commissioners observe :—
 “It is, we think, an established fact that the legislation of 1874 has tended to encourage the removal of pauper lunatics from workhouses into asylums, and has thus helped annually to swell the total admissions. It will, however, be observed that, notwithstanding this fact above stated, the ratio of the yearly increase of the admissions to population has been but slight, and not constant, showing that the large increase in the total number of the insane under care in asylums, hospitals, and licensed houses during the twelve years to which the table refers is mainly due to accumulation, and not to a greater annual production of insanity.”

It is satisfactory to have this explanation in face of the continued increase which is still going on in the gross number of cases of insanity under care, which now bear the relation to population of 23·34 to 10,000, or 1 in every 352, as compared with 27·94, or 1 in 357, last year, and 19·71, or 1 in 507, in 1861.

The progressive decrease which has been going on for many years past in the percentage of paupers to population has still proceeded in the past year, but the proportion of pauper lunatics to paupers, which showed a declension in 1879 and 1880, has again risen, although not to a serious extent.

It appears that the percentages of stated recoveries during the ten years between 1871 and 1880, inclusive, calculated upon the admissions, but excluding idiot establishments, were as follows :—

County and Borough Asylums.			Registered Hospitals.			Metropolitan Licensed Houses.			Provincial Licensed Houses.			Private Single Patients.			Total.		
36·09	44·46	40·32	39·12	52·75	46·48	27·90	34·39	31·43	31·80	33·16	35·11	14·97	16·70	15·88	35·49	43·26	39·40

The percentages of deaths to the daily average numbers resident in the same classes, and for the same periods, were :—

12·83	8·47	10·46	10·02	6·23	7·96	12·71	9·31	10·93	10·56	6·95	8·63	8·26	5·48	6·53	12·29	8·28	10·15
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The publication of the census returns will give substantial value to Table XIV. when repeated in the report for next year, for it shows the professions or occupations of the persons admitted into the various institutions for the insane, as derived from the special tables kept by their superintendents at the request of the Commissioners, which will be able to be proportioned to the occupations of the whole population of England and Wales at the time of the census in 1881 when these are published.

Of the 13,201 patients of all classes admitted into the various asylums in 1880, the percentages of persons labouring under the several forms of mental disorder were stated to be as follows:—

MENTAL DISORDER.						Males.	Females.	Total.
Mania	...	...	...	...	...	51·9	55·2	53·6
Melancholia	...	...	...	...	...	19·5	25·4	22·6
Dementia	{	Ordinary	...	...	...	16·2	9·8	12·8
		Senile	...	...	...	3·3	4·3	3·8
Congenital Insanity	...	...	...	...	...	6·6	4·0	5·3
Other forms of Insanity	...	...	...	...	...	2·5	1·3	1·9

The proportion of patients having a suicidal tendency was 28·8 per cent., and that of epileptics and general paralytics 8·7 and 7·3 per cent. respectively.

The table which summarizes the assigned causes of insanity, supplied, as it is, with data now specially verified, as far as may be, by the superintendents of asylums, and not taken from the misleading statements in the admission papers, bids fair to become an exceedingly valuable record, although any attempts to trace cases of insanity to separate causes must, in a large number of instances, be attended by failure or error. The percentages of this table, which relates to 13,201 patients, are appended, together with those from a subsequent table, which relates only to general paralytics:—

ASSIGNED CAUSES OF INSANITY.

ASSIGNED CAUSES OF INSANITY.																		
	MORAL.						PHYSICAL.						In General Paralytics.					
	In Patients of all Mental Conditions.						In Patients of all Mental Conditions.						In General Paralytics.					
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.			
Domestic trouble (Including loss of relatives and friends.)	4.2	9.1	6.8	2.3	7.9	3.6	...	...	...	...	...	...	19.3	6.5	12.6	20.6	13.1	18.9
Adverse circumstances (Including business anxieties and pecuniary difficulties.)	7.9	3.3	5.5	8.7	3.5	7.5	...	...	...	...	...	...	.8	.3	.5	.9	3.5	1.5
Mental anxiety and worry (not included under the above two heads)	6.4	5.0	5.7	3.6	3.5	3.6	...	...	...	...	...	...	1.0	.2	.6	1.1	.4	...
Religious excitement	2.0	3.0	2.5	.8	.9	.8	...	...	...	...	...	...	.7	.4	.6	1.1	.4	.9
Love affairs (Including seduction.)	.7	2.5	1.6	.1	1.7	.5	...	...	...	...	...	...	2.2	.1	1.1	1.2	.9	...
Fright and nervous shock...	.7	1.9	1.3	.2	.4	.3	...	...	...	...	...	...	5.2	.9	3.0	7.2	3.0	6.3
							...	...	...	...	...	...	—	.6	.3	.1	.4	.2
							...	...	...	...	...	...	—	5.9	3.0	—	3.5	.8
							...	...	...	...	...	...	—	1.7	.9	—	2.2	.5
							...	...	...	...	...	...	2.7	1.3	2.2	—	.9	—
							...	...	...	...	...	...	.1	.3	1.8	—	4.8	—
							...	...	...	...	...	...	3.5	.6	.9	.9	.7	...
							...	...	...	...	...	...	.7	.5	.6	.9	.7	...
							...	...	...	...	...	...	1.4	2.0	1.7	1.2	4.8	2.0
							...	...	...	...	...	...	3.1	4.3	3.8	.2	.9	.4
							...	...	...	...	...	...	10.1	10.2	10.1	7.5	11.4	8.5
Previous attacks	13.4	16.6	15.0	3.2	7.9	4.3	...	...	...	...	...	...	2.9	1.1	1.9	1.5	.9	1.3
Hereditary influence ascertained	19.6	21.0	20.3	10.9	19.7	13.0	...	...	...	...	...	...	22.6	22.8	22.7	27.4	32.4	28.6
Congenital defect ascertained	5.4	3.5	4.4	.2	.4	.3	...	...	...	...	...	...	...	...	...	...	...	...

An interesting series of tables is given to show the causes of the insanity in the patients who were admitted into the asylums of the various counties and boroughs, from which, when extended over a series of years, it may be expected that important deductions will be able to be drawn.

The table on page 566 is also interesting, especially when taken in connection with the column referring to general paralytics in that showing the causation of insanity.

The total number of persons of unsound mind under care in the various asylums, and as single patients, on the 1st January, 1880, was 50,175, of whom 7,741 were of the private class, and 42,434 paupers. The total admissions of the year 1880 were 15,240, of whom 2,614 were of the private class, and 12,626 paupers. Deducting transfers, the fresh admissions of the year are stated as showing "an excess of 160 over those of 1879, but a decrease of 119 on the numbers admitted in 1878." The readmissions of the last two years have been about 12 per cent. of the whole number of admissions. The recoveries in 1880, excluding transfers, and both admissions and discharges from idiot asylums, were 40·29 per cent., or nearly the same as for 1879, and a little above the average rate for the last 10 years. As the Commissioners remark, "the general result must be considered satisfactory, bearing in mind that a large proportion of the admissions of every year are chronic and incurable cases."

"Still excluding the idiot asylums, the death-rate in the other establishments, calculated on the average daily number resident throughout the year, has been 9·22. This ratio is more than one per cent. lower than it was for 1879, and nearly one per cent. below the average of the last 10 years." With reference to the deaths, the Commissioners draw special attention to the fact that post-mortem examinations were made in only 1,656 of the 4,498 deaths of the year, or in less than 37 per cent., showing a great and "much-to-be-regretted" falling off as compared with previous years. Of the deaths, 20 were the result of suicide.

The average weekly cost of maintenance in county and borough asylums in 1880 was 9s. 9½d., and that in hospitals, as derived from the Table B. in appendix of the report, £1 7s. 4d. The former sum shows an increase on 1879 of 2d., which comes almost entirely under the head of provisions.

The Commissioners draw attention to the fact that there is still throughout the country a great need of additional

AGES OF GENERAL PARALYTICS ADMITTED DURING 1880.																								
CONDITION AS TO MARRIAGE.	15 to 20.			20 to 30.			30 to 40.			40 to 50.			50 to 60.			60 to 70.			70 and upwards.			Total.		
	M. F.		T.	M. F.		T.	M. F.		T.	M. F.		T.	M. F.		T.	M. F.		T.	M. F.		T.	M.	F.	T.
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Single ...	2	—	2	24	5	29	72	17	89	42	11	53	16	6	22	2	2	4	—	—	—	158	41	199
Married...	—	—	—	19	9	28	226	77	303	191	51	242	75	15	90	14	—	14	1	—	1	526	152	678
Widowed	—	—	—	1	1	2	11	7	18	20	11	31	11	7	18	3	5	8	2	—	2	48	31	79
Unknown	—	—	—	—	—	—	1	2	3	7	1	8	—	1	1	1	—	1	—	—	—	9	4	13
	2	—	2	44	15	59	310	103	413	260	74	334	102	29	131	20	7	27	3	—	3	741	228	969

accommodation for middle-class patients who are able to pay only small and unremunerative sums for their maintenance; and they say:—"It is with great regret that we must report that, on the whole, the lunatic hospitals are not fulfilling the expectations we at one time entertained that their expansion and increased popularity among well-paying patients would materially add to the amount of charitable assistance available for the more necessitous class such as have been described."

And they add what is a singular, practical commentary upon the public agitation which has been proceeding for some time for the abolition of the private asylum system and the extension of that by which hospitals are governed. "No addition has been made to the number of hospitals; they are still 16." And the report might have added that in very few of them has any addition been made by the public of recent years to their endowment for charitable purposes.

As we have already said, the Commissioners devote considerable space to the discussion of Mr. Dillwyn's proposed Lunacy Bill; and occupying, as they do, a practically impartial position, with every means of knowing the defects of the law, if they exist, and of judging as to the defects of the means by which they are sought to be remedied, if these are defective, their remarks cannot fail to possess public interest. They say:—"The Bill appeared to us in several respects very objectionable. It consists of 17 clauses. The object of the first two, and of the fourth to the sixth inclusive, was to enable the Justices to provide accommodation for private patients out of the county rates, either by building new asylums, or by buying up existing licensed houses, converting them into asylums, and retaining them under the management of the Justices. The eighth clause provided for the admission into existing asylums of private patients, who were to receive superior accommodation to the pauper inmates. To all this we should raise no objection, but if the powers to be conferred upon the Justices were to be merely optional, we scarcely suppose that the first part of the Bill would be generally adopted. To make these powers compulsory would probably be impossible."

The Commissioners take great exception to the next clause, which provided for the reception of patients into asylums, because they think that it would greatly increase the difficulty in securing early treatment, a matter to which they very properly attach the greatest importance, and to the further-

ance of which their own efforts have been directed during so many years past ; and they remark :—" It can, therefore, be no matter of surprise that we should view with extreme jealousy any proposed alteration in the law which might seem calculated to check such early treatment. At the same time, we must not lose sight of the fact that this and other provisions of the Bill are the outcome of an uneasy feeling, somewhat widely spread, though chiefly among persons who have little special knowledge on the subject, but depend on constantly reiterated assertions, that further safeguards are needed for the protection of the liberty of persons alleged to be insane. The existence of such a feeling is, doubtless, to be regretted, but it would be, we venture to think, entirely contrary to sound principle to alter the law in an important particular without evidence of recent abuse." And they then cite the conclusions upon the absence of this evidence which were announced by the Select Committee of 1877 in their report.

They point out many difficulties in the details of the measure to which its crudeness may have given rise, but which, if its principle were accepted, might be overcome by amendment. They very naturally take exception to the introduction upon the scene of a Justice of the Peace, who should, by a mere official order, without necessary personal inspection, give the semblance, without the reality, of a safeguard ; and they do not favour the appointment of a special certifier for each district, because they, in common with many other persons, do not see their way to the appointment of such an official who would at once be easily, and at all times, accessible, and command the confidence of the profession and the public. The medical officers of health, they and we think, ought to have their time already fully occupied, and the Poor Law medical men would, as such, possess no special qualifications for the office over other medical practitioners.

The Commissioners sum up their objections to the Bill in the following words :—" The *certain* results of this measure would be, we strongly feel, to increase in many ways the reluctance, already very great, to place a relation under early treatment, a matter of the utmost importance.

" The *probable* result also would be that, to avoid publicity, patients of the upper classes would be clandestinely confined in England, or would be removed illegally to the Continent for treatment, and deprived of all the protection of visitation.

"It may be scarcely necessary to call attention to the fact that many people have no blood relations living within the second or even third degree, and that the wife is no relation by blood to her husband.

"The measure not only failed to remedy admitted evils, but so far at least as the ninth clause is concerned, it had a retrograde tendency, both as to early treatment and the security of the subject against improper attempts under colour of the Lunacy Laws."

Without pledging ourselves to an absolute detailed acquiescence in the conclusions at which the Commissioners have arrived, we cannot but admit that they commend themselves to our judgment as generally embodying sound principles. The public feeling which undoubtedly exists with respect to an attempt to secure more fully the liberty of the subject appears to have blinded its possessors to all other aspects of the question, and prevents a reasonable and calm consideration of it.

In increased safeguards to liberty are to be merged the mental welfare of the patient, as embodied in early treatment; and the safety of the public, as implied in some sufficient guarantee of recovery before discharge. The cry is not, as the fact is, that patients are, by the urgency of unwise friends, too frequently discharged from care prematurely, but that they are usually detained too long, and must be released when the most delicate and important part of the treatment should be about to begin. Because the principle of personal profit from the confinement of patients is undoubtedly an unsound one, private asylums must be abolished at once, and at any cost, even although a Select Committee, after a long session and a careful scrutiny, with unlimited power of inquiry in its hands, has declared that allegations of *mala-fides* or of serious abuses were not substantiated.

This is scarcely the temper in which to proceed with legislation which is both to affect a helpless class and have a large influence upon society; and it is to be trusted that when the Legislature approaches it with serious intentions, it will be in altogether a different spirit.

Twenty-third Annual Report of the General Board of Commissioners in Lunacy for Scotland, for the year 1880.

The Scotch Lunacy Blue Book is this year of unusual interest, and is well worth the careful perusal of every one who is interested in the treatment of the insane. In addition to the usual information, there is an attempt made carefully to describe what is special to Scotland in the management of asylums and in the treatment of the insane. In short, the "Scotch System" is analysed, and in concise terms we are told what it is and what results have followed. In the body of the report, under the heading of "Recent Changes in the Modes of Administering Scotch Asylums," we have 14 pages that well deserve and will attract much attention. They will stand as a landmark in history of the treatment of mental disease. We use the expression, "treatment of mental disease," because that is what is really described, and we wish the writer of the report had used this medical expression instead of "administration of Scotch Asylums," which is a mode of putting it that does not necessarily excite much interest in the profession of medicine. The Scotch Board being essentially a medical board, we expect that medical phraseology will be used, and a medical spirit run through the whole. But it is the wording only we criticise. That portion of the report is a most carefully written piece of true scientific work, containing the facts themselves, the history of their application, the inferences to be deduced from them, and the reasons why the particular results have happened, or the medical philosophy of the matter. After a preliminary notice of the statistics, we think the best plan will be to let that portion of the report speak for itself by copious extracts.

There were in Scotland on the 1st January, 1881, 10,012 insane or idiotic persons known to the Scotch Board, being an increase of 378 over the number of 1880. The greater part of this increase, which is an unusually large one for a year, consists of rate-paid lunacy. Scotland still holds the honourable position of maintaining a far larger proportion of its insane and private patients than either of the other divisions of the United Kingdom. In Ireland (assuming that all the inmates of private asylums are private patients) 5·5 per cent. only of the insane are supported out of their own means or by their relatives. In England 10·7 per cent. are so supported, while in Scotland 16·4 per cent. are in this category. Of this most remarkable fact we have seen no

adequate explanation. Is it the poverty of Ireland and England that place them so far below Scotland in this matter? or the want of asylum accommodation at low rates of board? or the lack of self-respect and natural affection in the peoples?

There were 49 voluntary patients admitted to Scotch Asylums during the year, and the Commissioners express a favourable opinion as to the provision of the Scotch Lunacy Law. The recovery-rate in the asylums was 41 per cent. for the year, and the death-rate on the average numbers resident 7·6 per cent. And here we would point out a defect in the mode of making up tables in the Scotch blue book. The numbers and percentages for males and females are given, but not for the totals. It would greatly help a comparison of the facts with those of England and Ireland were this small matter put right in future reports, besides making them of more real scientific and medical value. A new form of daily register for use in Scotch Asylums is given. It is an immense improvement on the old one. It is very simple, and the numbers under each heading easily got. One hundred and forty-four accidents occurred in Scotch Asylums during the year, of which seven were suicides and one a homicide by a kick from a fellow criminal lunatic in the general prison at Perth. There were 260 escapes, of whom 239 were recaptured or returned. In regard to suicides and escapes, there is no doubt that Scotland far exceeds the numbers of England and Ireland. The reports of the Commissioners' visits to asylums are on the whole of a favourable character. There is a cheerful ring about them, a hopeful spirit as to the remedies for present defects, and an encouraging yet stimulating tone towards the medical staff that shows a healthy confidence.

We now come to the really original and important part of the report to which we have alluded:—

Recent Changes in the Modes of Administering Scotch Asylums.—
... The most important changes that have taken place of late have been manifested chiefly in three directions:—

(1) In the greater amount of liberty accorded to the patients; (2) in the increased attention that is devoted to their industrial occupation; and (3) in the more liberal arrangements that are made for their comfort.

Each of these changes has been a distinct improvement, and has conferred important benefits on the insane; but the effect of each has been made much more complete from the support it has obtained by

being associated with the others. For instance, the removal of restrictions upon liberty could not have been carried so far had steps not been taken to engage the energies of the patients in such occupations as tend both to check the morbid current of their thoughts and to prevent them from fretting at the control to which they must always be more or less subjected, while it is no less true that the comforts with which they are now surrounded render them both more able and more willing to engage in healthful occupations. . . .

The Abolition of Airing-Courts.—Circumstances such as these, perhaps, prevent any immediate prospect of the universal abolition of walled airing-courts; but the advantages which result from their disuse are not widely recognised. Most of the public asylums in Scotland are already without them, while in several, where they still exist, they are seldom used. One of the advantages which airing-courts with walls were thought to possess was their supplying a place where patients suffering from maniacal excitement might work off their morbid energy in safety. It can scarcely be doubted, however, that the association in confined areas of patients in this state, either with one another or with other patients in calmer mental states, is attended with various disadvantages. The presence of one such patient may be the cause of a great amount of excitement, and a source of irritation and annoyance to those confined in an airing-court along with him. After the disuse of the airing-courts it was found that such patients could be treated satisfactorily in the wider space of the general grounds. It was found by placing them more immediately in companionship with the attendants, and by keeping them from collision with other patients, that they could be made to vent much of their excitement with less disorder, and could often be saved from a considerable amount of it altogether.

The Open-Door System.—It is only of late years that the disuse of locked doors has been regarded as forming an important feature in the administration of an asylum. Detached houses, or limited sections of the main buildings, the inmates of which consisted chiefly of patients requiring little supervision, have long been conducted in some institutions without locked doors. But the general practice of all large asylums has been to keep the doors of the various wards strictly under lock and key. . . .

When an attendant could no longer trust to locked doors for the detention of troublesome and discontented patients, it became necessary that he should keep himself aware at all times of where they were and what they were doing. And it therefore became his interest to engage them in such occupations as would make them contented, to provide an orderly outlet for their energies, and to divert their minds from thoughts of escape. The relations of an attendant to his patient thus assumed less of the character of a gaoler, and more the character of a companion or nurse; and it was eventually found that this change in the character of the form of control could be adopted in the

treatment of a much larger number of the patients than was at first anticipated. It is not difficult to over-estimate the extent to which a desire to escape affects the minds of patients in asylums. The number who form a definite purpose of this kind really constitutes only a very small proportion of them. The special watchfulness required of attendants in guarding against determined efforts to escape, therefore, need be directed to a few only of those under their charge, and it soon becomes habitual to the attendants to keep themselves aware of where those patients are about whom they entertain doubt. And it should be borne in mind, in regard to this kind of watchfulness, that its very persistency renders it more easily kept up than if it could be occasionally relaxed. It appeared further that the disuse of locked doors had an influence on some of the patients in diminishing the desire to escape. Under the system of locked doors, a patient with that desire was apt to allow his mind to be engrossed by the idea of watching for the opportunity of an open door, and it was by no means infrequent to find such a patient watching with cat-like eagerness for this chance. The effect of the constantly open door upon such a patient, when the novelty of the thing had worn off, was to deprive him of *special* chances of escape on which to exercise his vigilance, since, so far as doors were to be considered, it was as easy to escape at one time as another; and it was found that the desire often became dormant and inoperative if not called into action by the stimulus of *special* opportunity. It is, indeed, a thing of common experience that the mere feeling of being locked in is sufficient to awaken a desire to get out. This happens both with the sane and the insane; but it is certain that the mental condition of many patients in asylums renders them likely to be influenced in an especial manner by such a feeling. With many, however, the desire to escape dies away when it ceases to be suggested by forcing upon their attention the means of preventing it.

It is year by year becoming more clearly recognised that many advantages result from the working of the open-door system, and it has now been adopted to a greater or less extent in most of the Scotch Asylums. . . .

Liberty on Parole.—The practice of permitting certain patients to walk or work in the grounds without constant supervision, and of permitting some to take exercise beyond the grounds on *parole*, has been general in Scotch Asylums for many years, but it is now much more extensively adopted in them than it used to be. Like the other removals of restrictions to which we have referred, this has found favour in the eyes of superintendents on account of the beneficial effect which it has on the patients, not merely in making their residence in an asylum less irksome, but also by improving their mental condition. The fears which were naturally entertained that this form of relaxation of control would be followed by an increase in the number of accidents and escapes have not proved to be well founded.

In determining the desirability of any kind of restrictive discipline

and supervision, it has to be considered, among other things, whether the irritation that it occasions may not render the danger of accidents from violent conduct greater than it would be if such discipline were not enforced. . . .

Benefits Arising from the Removal of Restrictions.—The beneficial effects arising from the removal of the various forms of restrictions on liberty are no doubt due, in great measure, to the increased attention that is given to the features of each patient's condition, for it is only after a careful study of the disposition and tendencies of a patient that a trustworthy opinion can be formed as to the amount of liberty that he is fit to enjoy. But it must also be recognised that the freedom from irksome discipline and restriction tends to remove one of the sources of violent conduct in asylums, and consequently to diminish the number of accidents which results from it. Many patients have, under the freer conditions of their life, become calm and orderly in behaviour to whom the imprisonment in wards under lock and key, the confinement within high-walled airing-courts and even the feeling of being under the constant supervision of attendants, were sources of irritation and excitement and causes of violent conduct.

There are other advantages which spring from this relinquishing of some of the physical means of detention. One of these, the importance of which will be readily appreciated, is the inducement it affords, not only to superintendents, but to every one concerned in the management of the patients, to acquire a full and correct knowledge of the mental condition and character of each patient. It not only increases the interest they have in ascertaining how far and in what ways each patient is fit to be trusted, but it strengthens in a very practical manner their motives for endeavouring to secure his contentment and orderly behaviour. The judging of what is required for their purposes inevitably involves a good deal of intelligent observation of each patient, not only on admission, but during the whole time he is resident in the asylum. It becomes of practical importance to those in charge to note changes in his mental condition, whether in the direction of improvement or the reverse; and thus favourable or unfavourable symptoms are observed and considered which in other circumstances might receive little attention. The general effect of the change of system is to raise the position of the attendants from being mere servants who carry out more or less efficiently the orders of the superintendent to that of persons who have a direct interest in promoting the improvement of the patients, and who find it an advantage to themselves to carry out, to the best of their ability, whatever instructions they receive with that end in view. A good attendant must always have had more or less of this character, it is true; but even good attendants are stimulated under the freer system to become still better.

Industrial Occupation.—One effect of the removal of physical restrictions has been to stimulate as well as aid the superintendents of

asylums in their efforts to develop the industrial occupation of the patients. The disadvantages of prolonged idleness, to the insane as well as to the sane, and the advantages that result from such occupation as gives exercise to the physical and mental energies without overstraining them, are too obvious to require discussion. It was consequently an important result of the disuse of walled airing-courts, and of the open-door system, that it became necessary to engage the attention of patients who were inclined to escape, and also of the much larger number who might wander away without any such definite purpose, so as to keep them under control and supervision. It did not require much study of the mental state of the patients, nor indeed much attention of any kind on the part of their attendants, to ensure their safe custody, when the conditions of their life were either to be locked within their wards, to be confined within the high walls of airing-courts, or to be marched in military order at stated periods for exercise. Under such conditions, there was no strong motive for inducing those patients to work who showed no disposition to do so of their own accord. The morbid excitement, the apathies, or the gloomy feelings of many patients were allowed to remain unchecked, and not unfrequently the mental disease was intensified rather than alleviated. The more restless patients often spent much of their day in pacing the galleries or the airing-courts, nursing their morbid irritability, while others lounged on the benches or crept into corners, and so drifted downwards through the dreary stages of physical and mental decay. It does not require much consideration to show that it would tend to improve all such patients, both in their bodily and mental health, if they were engaged in some regular occupation during a reasonable portion of their time. . . .

The Industrial System cannot be Adapted to all Classes of Patients.— . . . But there are patients, both among those of the private and among those of the pauper class, whom it is undesirable, and whom it would also be wrong, to engage in work. There are cases, for instance, in which, for various reasons, such as physical weakness, it would be directly injurious to the patients to be engaged in active or fatiguing work; and it would be unsatisfactory if it were found that the efforts to develop the industrial system in asylums led to such patients being pressed to work. . . .

Advantage of the Farm as a Source of Occupation. . . . The number of persons available for work on an asylum farm is always great; and in those asylums where full advantage has been taken of the opportunities which the farm affords, it is found that the directions in which the labour of patients may be utilised are much more numerous and various than at first sight may appear. For instance, one large outlet for their labour is supplied by the use of spade husbandry in circumstance in which the ordinary farmer would use the plough. Another outlet is to be found in the cultivation of crops of garden vegetables, which the ordinary farmer does not usually undertake.

The carrying out of improvements on the farm or estate also gives employment of various kinds, and it is here, perhaps, that what may be called the elasticity of land as a source of labour for asylum inmates becomes more evident. If the land attached to an asylum is of any considerable extent, it will nearly always happen that important rearrangements are deemed desirable; and when there is a disposition to encourage improvements of this kind, it is generally found that they afford a very abundant and varied source of labour. Road-making, embanking, draining, fencing, planting, and even building, are generally found to be required; and in connection with these things, and with the work more accurately included under the term agricultural, there are subsidiary forms of industry developed. Indeed, the different kinds of work afforded by the rearrangements and improvements on an estate prove of great value in asylum administration, for they afford some of the simplest kinds of outdoor labour. Many patients can be engaged in such occupations as digging and wheeling who can with difficulty be engaged in less simple kinds of work; and by securing an ample supply of such simple work the number of patients who share in the benefits of active healthy labour in the open air is much increased. . . .

It is impossible to dismiss the subject of asylum farms without some reference to the way in which they contribute to the mental health of the inmates by affording subjects of interest to many of them. Even among patients drawn from urban districts, there are few to whom the operations of rural life present no features of interest; while to those drawn from rural districts the horses, the oxen, the sheep, and the crops, are unfailing sources of attraction. The healthy mental action which we try to evoke in a somewhat artificial manner, by furnishing the walls of the rooms in which the patients live with artistic decoration, is naturally supplied by the farm. For one patient who will be stirred to rational reflection or conversation by such a thing as a picture, twenty of the ordinary inmates of asylums will be so stirred in connection with the prospects of the crops, the points of a horse, the illness of a cow, the lifting of the potatoes, the laying out of a road, the growth of the trees, the state of the fences, or the sale of the pigs.

Importance of Active Physical Work for Women. . . . An attempt, attended with considerable success, has been made in some asylums to supply this deficiency by the development of the work of the laundry and washing-house. . . .

There are two directions in which the work of the washing-house may be developed. One is by obtaining work from outside sources, as has been done in some institutions, where a considerable amount of washing and dressing is done for persons living in the neighbourhood. Another direction is by avoiding the use in the washing-house of all machinery which diminishes the amount of hand labour. And we are disposed to regard both these modes as deserving of encouragement. . . .

Difficulties met with in carrying out Improvements. . . . In relaxing restrictions upon the liberty of the insane, there is a certain amount of prejudice in the public mind to be met and overcome. There is a feeling of timidity in regard to persons labouring under insanity, which leads to their being regarded as without exception and in all circumstances unfit to be trusted with any degree of liberty. As a result of this, there is a tendency, when a patient in an asylum inflicts injury on others or on himself, to blame the superintendent for having permitted the patient to have such liberty of action as made the inflicting of the injury possible; and there is consequently a temptation, to a superintendent who wishes to avoid adverse public criticism, to adopt restrictive measures of the most complete character.

It was under the influence of such views that strait jackets, manacles, and chains were used before the introduction of what is called the system of non-restraint. When such restraints were used it was said that no blame could be attached to persons in charge of a patient for any violent deed which might be perpetrated, because it was held that every possible precaution had been taken to prevent it. The error that lurked beneath this statement was not perceived. It was not recognised that in taking precautions against one set of evils, other evils of a graver character were created. Even the evils which it was sought to avoid were not avoided. The first man from whom Pinel removed the manacles had, with those very manacles, killed one of his keepers. The superintendent who really takes most precautions against violence is not the man who applies the most complete restrictions upon liberty, but he who weighs the general results of different modes of treatment, and selects that which proves in practice most successful in decreasing the number of violent acts. . . .

We cannot hope, in carrying out any system, to exclude the effect of mistakes in judgment and neglects of duty. . . .

One difficulty for which no satisfactory solution has yet been found is the finding of employment for male patients during bad weather, when little out door occupation is to be had. It would be of great advantage if some simple indoor occupation, adapted to the peculiarities of the insane, were devised which could be taken up occasionally when out door occupation failed. . . .

Increased Comfort of Asylums.—It is satisfactory to record our conviction that all the changes just alluded to have tended not only to facilitate the administration of asylums, and to produce greater contentment among the inmates, but also to exert a real curative influence. The scenes of turbulence and excitement which used to be of frequent occurrence in asylums have become much less frequent, and in the asylums where the changes in question have been most fully carried out, such scenes are comparatively rare. It does not admit of doubt that the occurrence of these fits of excitement had a deteriorating effect on the mental condition of the patients, and often retarded, if they did not in some cases prevent, their recovery. It is not unusual

now to pass through all the wards of some of the larger asylums without observing a single instance of disorderly behaviour, and we believe this is properly attributed to such changes as have just been noted. It is true that excitement may, to some extent, be kept in check by the use of calmative drugs; but we believe we are justified in saying that this practice is largely followed in no Scotch asylum, while it is scarcely adopted at all in those in which manifestations of excitement are least frequent, in which restrictions on liberty are most completely withdrawn, and in which industrial occupation has its greatest development.

Deputy-Commissioners Fraser and Lawson write very instructive reports as to the single patients who are boarded out under their supervision. The following extracts show Dr. Fraser's well-considered views on the boarding-out system, to which he has evidently given most careful consideration, and of which he has had unrivalled experience:—

The Influences which are at present operating on the Boarding-out of Lunatics. . . . The influences which, from my experience and observation, I believe to be operating upon these methods of provision for the insane, especially upon the pauper portion, seem to me to be as follows:—

1. The efforts of medical officers of institutions to discharge chronic lunatics whom they consider suitable for being cared for in private dwellings.

2. The action of inspectors of poor in either initiating the removal of suitable cases, or in seconding the efforts of medical superintendents in this direction.

3. The amount and accessibility of asylum accommodation in each district.

4. The rate of maintenance in asylums.

5. The supply of suitable guardians.

6. The influence of the grant-in-aid.

The Action of Medical Officers of Asylums. . . . Owing to my having had at one time the superintendence of the asylum for Fife and Kinross, I am able to deal more satisfactorily with the statistics of this district than with those of other parts of the country. From a return which I have been favoured with, I find that the efforts to send out patients in this district have been effective and successful. During 1880 there have been discharged improved 18 patients, five of whom were committed to the care of friends, and 13 of whom were placed under the guardianship of strangers. . . .

The question which naturally suggests itself is—What would be the result were this practice possible in every institution, and in every district? On calculation I find that, had an equal proportion of the inmates of all asylums been similarly transferred to private care, no

less than 403 patients would have been removed from institutions to care in private dwellings, whereas the fact is that only 68 were so transferred. Only one patient out of the 18 who were transferred from the Fife and Kinross Asylum has had to be returned to the asylum, and he was one of those who were boarded with friends. . . .

The Action of Inspectors of Poor.—The efforts of medical superintendents of asylums may do much, but it must be recognised that the success and extension of the boarding system is largely, if not mainly, in the hands of the inspectors of poor. Their action is threefold : (1) they may initiate the removal of their chronic insane from institutions ; they may co-operate with asylum officers in readily removing such lunatics as these officers intimate to be fit for being boarded out, and in procuring suitable guardians and homes for them ; and (3) they may, by well-directed efforts, instead of hurrying every lunatic into an asylum, as the practice with some is, provide in like manner for those idiotic and insane paupers who, even when they first became chargeable, do not require asylum treatment and care. . . .

Economy, one of the proper objects of parochial administration, is attained by this method of providing for the insane poor, and not only is it economical, as I will immediately show, but for a large proportion of chronic lunatics it is efficient and beneficial. From a return with which I have been favoured from the City Parish, Edinburgh, the average cost, inclusive of supervision and every other item of expenditure, for the insane boarded with strangers is £19 a year. The asylum rate during the last five years has been £27 per annum. . . .

The Amount and Accessibility of Asylum Accommodation in each District. . . . It has now become a matter of every-day observation, that where there is ample asylum accommodation the boarding out of the insane is either entirely neglected or avoided, or but languidly attempted. . . .

It follows that ample asylum accommodation, though in itself a service and a safeguard to society, is yet apt to be an inducement to wasteful parochial administration. . . .

The Rate of Maintenance in Asylums.—In Dumfriesshire, where special circumstances have kept the asylum rate exceptionally low, and where agricultural avocations are well paid, the guardians require a high rate of board, and thus the cost of boarding out, when clothing, medical visits, and other expenses are included, is nearly equal to the rate of maintenance in the asylum for the district.

It therefore stands to reason that where the asylum rate is near to that required for outdoor care, the economic inducement to board out will apply only to those patients who have friends willing to have the charge of them. It thus appears that a low rate of maintenance in an asylum is practically prejudicial to the liberty of the chronic insane.

The Supply of Guardians.—This feature of the system of boarding out the insane will appear to many to be all-important. The excuse

which inspectors frequently advance for their lack of co-operation with medical officers of asylums is their inability to find suitable guardians. It is, however, an excuse which my experience does not permit me to regard as valid or sympathise with. . . .

The Influence of the Government Grant.—I feel I need do no more than mention this agency in increasing the number on the roll of single patients. The way in which it has led to this increase has been fully treated of in the published reports of the Board. . . .

Dr. Lawson makes the following medical observations, the novelty of which is only equalled by their suggestiveness:—

The proper estimation of the system of boarding out pauper lunatics in private depends, to a considerable extent, on the recognition of variation in accepted social conditions. The Shetland guardian, who undertakes to maintain an unproductive lunatic at the rate of 2s. per week, may, at first sight, seem to be badly treated as compared with the Lanark guardian, to whom 8s. per week is paid for the maintenance of a similar patient. When, however, it is considered that in the latter county every article supplied for the use of the patient is a readily marketable article, procurable only by exchange for money or marketable labour, and that in the former the habits of the people and the abundant supply of fish for food render it almost unnecessary for the careful guardian to expend the allowance in anything but luxuries, the difference is seen to be only an apparent one. Similarly the standard of comfort varies as much between several of the counties tabulated as if they were situated in entirely different countries. . . . Thus it happens that the insane member of such a household cannot unfrequently be more readily recognised by his superiority in apparel and cleanliness than by his marks of mental inferiority. . . .

It gives me great pleasure to be able again to report to the Board that, judged by this sliding scale supplied by the variation in the standard of comfort in different groups of counties, the insane who are resident in private dwellings and specially licensed houses throughout the district assigned to me were found during my last visitation to be so well cared for, that only in a few instances was it necessary to make more than merely casual suggestions for the improvement of their condition. . . .

There are four varieties of cases which call for special attention in carrying out a visitation of the insane resident in private dwellings. They are cases of—

1. Mania, with delusions of suspicion and hallucinations of the special senses.
2. Melancholia, with suicidal propensities.
3. Recurrent mania.
4. Doubtful insanity.

At present I will refer mainly to the first three groups of cases, on the ground that they must be regarded by experts as being liable to

contain many individuals whose mental state may involve themselves and others in personal and social danger. One of the first statements usually made to the student of mental diseases is, that the maniac with delusions of suspicion and hallucinations of the special senses is necessarily a dangerous individual—one from whom violence must be expected at any moment, and who must always be deprived of the means of inflicting injury. The same remark is advanced regarding cases of melancholia in which there is a constant expression of lugubrious delusions and suicidal threatenings. Notwithstanding this general impression, however, regarding the dangerous propensities of patients labouring under mania with delusions of suspicion and hallucinations of the special senses, I think that almost all who have been actively employed in the management of large bodies of the insane will, on consideration, admit that though the general features of such cases lead us to anticipate that those labouring under this form of mental disturbance are liable to commit violence, yet experience teaches that many lunatics with well-pronounced delusions of suspicion and incessant hallucinations of sight and hearing pass through a long course of insanity without showing resentment against the objects of their suspicion, without obeying the false promptings of their special senses. As in daily life, so in insanity, suspiciousness and timidity not unfrequently co-exist; and in the one case, as in the other, cowardice may lead to the suppression of that violence which the morbidly suspicious man may be prone to perpetrate. In studying this group of insane cases, I think it is also advisable to give some little weight to the consideration that a strong sense of security, as well as an impression that the impartial action of the law is better than summary retribution, have been developed in the minds of the sane by the sound organisation of modern society, and that the conduct of the insane is also modified by them, except perhaps in those rare instances in which insanity completely alters the mental tendencies, and causes the insane man not only to start from a false basis, but to reason differently from the method to which experience has accustomed him. Mania and melancholia may be divided into two large groups of cases, according to the intensity of the operation of delusions upon the mind of the sufferer. In one class of cases, usually spoken of as acute (the term simply meaning severe), there is a very active appreciation of delusions and hallucinations, which not only modifies completely the workings of the mind of the patient, but degrades the general nutrition of the body, establishes a cachexy, and exposes the patient to dangers from all the forms of local disease which have their predisposing cause in general prostration. The pinched, anxious, cadaverous look of an acute delirious maniac, and the agony expressed in the face and by the contortions of an acute melancholic, are the index of real and absorbing ideation. On the other hand, the maniac who smilingly speaks of the numerous magnetic batteries which disturb his nocturnal rest, and eats ravenously

of the food which he declares to be saturated with subtle poisons, and the highly imaginative melancholic who lives and fattens notwithstanding the constant expression of the most lugubrious beliefs, belong to a class of lunatics who, though their delusions may be equally sincere, are not likely to have their conduct modified by their insanity to any extent or in any way that would be injurious to themselves or others. . . .

Consequently the maniacal and melancholic are divisible into two great classes, namely, those in which depraved feeling leads to delusions—the delusions being generally regarded as explaining the existence of some abnormal feeling—and those in which mental disturbance shows itself in the subjective appreciation of phenomena which are of the nature of delusions and hallucinations. In the first group, the patients would not be likely to take any action which would be detrimental to themselves or others; in the second, attempts at violence and suicide are likely to be frequent and determined. In the first group, the patients have, as a rule, a lingering impression that a considerable amount of romance enters into their explanation of their feelings; in the second, they have a fanatical faith in their insane beliefs, and a dangerous contempt for any moral restraint which would prevent the consummation of their insane designs. I have selected twenty cases of well-marked mania with delusions of suspicion, and melancholia with threatenings of suicide, residing in private dwellings. Every case of this kind is made a subject of careful inquiry, and out of the twenty cases I have met with only two in which there was reason to apprehend personal danger sufficient to lead me to desire the patient's removal from a private dwelling to an asylum. In both cases the eager wish of the patient's relatives to detain him at home, supported by strong assurances of close guardianship, led me, after ascertaining that the neighbours shared the wish of the guardian that the patient should be detained at home, to recommend the continuance of the sanction to treat him in a private dwelling. In one of the two cases the patient suddenly assaulted his brother under the belief that he was the devil, but he was readily secured before he had inflicted any real injury, and removed to an asylum. . . .

The question naturally arises whether the better policy would not be to send all such patients to asylums? In the first place, it may be answered that in the majority of instances the probability of any serious accident is so small that it would be unjustifiable to remove the patient from fixed attachments upon a vague suspicion of danger. For if I have been right in speaking of two distinct varieties of mania with suspicion and melancholia with suicidal propensities—the one variety in which delusions and delusional methods of thought are, so to speak, superadded to the substance and methods of ordinary ideation, and which rarely embraces cases of real danger; and another variety in which the workings of the mind become altogether delusional, in

which the abnormal elements and modes of thought virtually abrogate those which are normal, making the patient dangerous to himself and others by the supremacy of his mental aberration over his daily conduct—it will be evident that these two varieties are amenable to distinct methods of treatment. I hold that patients of the first class are much more common than those of the second, and that only those of the second class require such special watchfulness and care as can be provided only in an asylum. In the second place, it may safely be stated that the residence in an asylum of patients labouring under mania or melancholia with suspicion is more likely to intensify than to cure their insane proclivities. It would be scarcely reasonable to expect that a man who, for example, has developed insane delusions of suspicion during the progress of some insidious bodily ailment would not be more likely to be injured than benefited by being placed amongst a group of other men similarly afflicted, with whom he could speak freely of his delusions, and from whom he could receive in return a confirmatory account of theirs. One can imagine what would be the mental embarrassment of a patient suddenly cured of the delirium of fever and finding himself, with a vivid recollection of his ravings, surrounded only by delirious companions, whose utterances would be strongly confirmatory of his diseased fancies. The delusional maniac, whose insanity still leaves in him the power of observation and argument, is, when placed in an asylum, almost similarly situated, and I speak from experience when I say that in an asylum one maniac of this class is only too ready to find in the expressed delusions of another the most satisfying conviction of the truth of his own fancies. Similarly, in every-day life, one spiritualist, for instance, becomes dogmatic about experiences of which he had hitherto been doubtful when he hears of some more incredible incident in the life of another medium. . . .

In another class of cases which might speculatively be regarded as barely suitable for treatment in private dwellings, I have been gratified to see excellent results. I refer to cases of recurrent mania. I have such cases in both their noisy and quiescent stages, and nothing could be more striking than the contrast between the senseless and thoughtless abusiveness of the noisy stage and the affectionate conduct and devotion to domestic work and family interests which characterise the patient in the state of quiescence. In fact, a recurrent maniac, during a period of quiescence, often stands out amongst the relatives or strangers with whom he or she may dwell as a cultivated and amiable member of the household, and seems to cultivate during periods of repose that sympathy which ensures good treatment and forbearance during attacks of excitement. In most of the cases of recurrent mania visited by me, the patients remain voluntarily in bed whilst the excitement lasts.

Report of Inspectors of Irish Asylums for the year 1880.

The Inspectors of Irish Asylums commence their report by giving their reasons why the institution within their immediate jurisdiction should be found, without any invidious reference even to the best conducted elsewhere, to stand in a highly favourable position. Of this they give the following tests:—

- 1st.—The number of cures.
- 2nd.—The number of improvements.
- 3rd.—The immunity from accident.
- 4th.—The paucity of deaths.
- 5th.—The rarity of escapes.
- 6th.—The maintenance of a moral tone by the staffs.
- 7th.—Economy of expenditure.

The recoveries *on first admission* amounted to 52 per cent., but this extraordinary high percentage is accounted for by the fact that the relapsed cases have been deducted from the admissions, whereas a like deduction has not been made from the recoveries. No fatality occurred from personal assault, but one death is recorded as taking place from accident, and three from suicide.

The mortality amounted to $7\frac{1}{2}$ per cent., the deaths being 804 on 10,800 under treatment.

The number of escapes amounted to six.

No legal proceedings had to be taken against any of the attendants for cruelty.

These statistics must be most encouraging to all engaged in the management of Irish Asylums, and speak for themselves for the high state of usefulness to which these institutions have been brought. It must be remembered, however, how favourably Irish Asylums are circumstanced with regard to admissions and deaths from the extreme rarity of general paralysis, and the small number of cases of epilepsy to be found in public asylums, in comparison with the statistics of other countries. According to the English Commissioners' Report, during the year 1880, out of 13,201 cases admitted, 1,151 were epileptics and 969 general paralytics, whereas in Ireland no mention is made of such a disease as general paralysis, and out of 8,667, the total number under treatment in asylums, only 552 suffer from epilepsy.

With reference to the expenditure, the total for the year 1880 amounted to £198,141 6s., but this sum had not been

audited owing to the early date at which the report was published, the annual fiscal visit of examination under the 31st and 32nd Vic. cap. 97, not commencing at the earliest before April. The report therefore deals with the accounts for 1879, of which £84,810 was obtained as a grant through "the Treasury rate in aid," leaving a payment to be met by local taxation of £114,323, equivalent to a penny three-farthings in the pound. The capitation cost of maintenance in 1879, in which all items of outlay are included, save those incidental to the department of the Commissioners of Control, such as buildings and the purchase of land, was £23 5s. 4d., a diminution of £1 7s. 6d. per head on the cost of the preceding year. The Inspectors point out that this progressive diminution in the current cost of district asylums, observable for some few years, becomes the more agreeable in that it has not interfered with a more liberal scale of dietary or with increased facilities for occupation and amusement.

Although inferior to English Asylums as regards external comforts and furniture, nevertheless, bearing in view the antecedents of the insane inmates and their previous habits of life, district asylums in Ireland are considered to be more favourably circumstanced. "The transition from poverty, and in many instances consequent neglect, is more marked when the change is succeeded by an attention to reasonable and benevolent requirements." In many asylums the scale of wages, however, had been still too low for the duties imposed on attendants, but an improvement is gradually taking place, whereby the employment of competent servants may be secured.

At the end of 1880 the number of the insane in district asylums amounted to 8,667, an increase of 177 during the year, and the total number of lunatics under care in the country at the commencement of the present year amounted to 13,051, an increase of 252 as compared with the preceding year.

The admissions to district asylums of cases of first attack amounted to 1,925, and of relapses to 441; of these 118 were received at monthly board meetings, 840 as urgent cases, 103 by warrant of the Lord Lieutenant, 1,270 as dangerous lunatics under the 30th and 31st Vic., cap. 118, and 31 as paying patients.

From these statements it must be concluded that as yet no steps have been taken to simplify the various ways of obtaining admission to Irish Asylums. Had the Bill introduced by Mr. Litton during the past session become law, the ad-

mission order universally used in England would have extended to Ireland, so that in time the present confusion and difficulty experienced in obtaining admission to Irish asylums might have been removed by the substitution of one simple order for the complicated machinery at present in existence.

The Inspectors, however, seem to consider that the introduction of the Bill extending protection under the 16th and 17th Vic. cap. 97 to the insane, who are at present not under State supervision, would be to fill hospitals for the insane with unpromising cases, at a considerable increase of expenditure, to the exclusion of others more urgent or more hopeful. The answer to this seems plain, that if the accommodation for the insane is inadequate, every effort should be made to provide increased means of protection for those who are unable to care for themselves. It surely cannot be reasonably sustained that because the accommodation is inadequate for the wants of the insane population, for that reason no further legislation should be put in force for their better protection, nor does the supposition that mistakes might occur in sending people to asylums, who do not require to be deprived of their freedom, deserve more serious consideration. That such mistakes may and will occur for all time cannot be doubted, but there cannot be any reason to suppose that because increased supervision is provided these mistakes would become more frequent. Such has not been found the case in England, where this Act has been in force for many years.

The total sum expended on the enlargement and structural alteration of asylums under the Board of Control amounted to £48,600 during the year. Of this sum £20,000 was allocated to the Armagh Asylum to provide accommodation for 100 patients, a chapel, and a recreation hall, to Ballinasloe £10,000 for providing additional accommodation and a detached chapel; £8,000 to Clonmel for increased accommodation; and £3,500 to Cork for various works; with smaller loans to various other asylums.

As yet the Executive have given no decision with regard to the vexed question of the Derry Asylum, the Inspectors having for years suggested its removal to a more suitable site at some distance from the city, where an adequate supply of land could be obtained, the Local Board, on the other hand, insisting that it should remain where it is.

The number of persons more or less mentally affected to

be found in workhouses amounted to 3,573 at the beginning of this year, being 82 more than at the same date in 1880. The Inspectors believe that in this number the great majority of our demented poor is included, inferring that during the protracted severity of the weather in the past seasons, and the destitution so prevalent about the country, most of this class found their way into some institution.

From the returns officially supplied by the Local Government Board, 1,875 of these are enumerated as "idiotic or imbecile epileptics," 1,698 are given under the heading of "demented or epileptic." What distinction is intended to be understood by this classification the Inspectors do not state, unless it is to be supposed that under the first heading the disease was congenital, whilst under the second it had come on late in life.

As far as the limited accommodation will allow, the insane are stated to be liberally treated in Irish workhouses. At Cork and Belfast, where the insane inmates amounted to 436, preparations are now in progress to increase the lunatic accommodation, not only within doors, but also to enlarge the grounds for exercise and employment.

The Central Asylum at Dundrum is stated to contain 16 prisoners over the legitimate number. To obviate the necessity of structural addition, the Inspectors have selected for transference to district asylums, such aged and inoffensive persons acquitted on the ground of insanity, and those who, save in the case of puerperal mania, had not been charged with homicide. By this arrangement, which has worked successfully, giving no local dissatisfaction, the Inspectors anticipate that provision will be made for the requirements of the criminal insane.

At the same time, certain alterations and additions are pointed out as much needed at Dundrum, viz., an enlarged dining-room, additional single rooms, new rooms for the head attendant, and a bath-room. The admissions for the year amounted to 21, 6 were discharged recovered, and 18 as incurable, 6 died and 1 escaped.

The Inspectors point out that considering the class of cases in the Dundrum Asylum, whose antecedents in connection with crime are naturally regarded by the public with aught but favourable sentiments, the patients are, as a body, amenable and remarkably well conducted.

Dr. Ashe calls attention to the very favourable sanitary condition of the institution, the deaths during the year

amounting to 6 only, or a percentage of 3·3 on the daily average number of patients in the house.

The number of private patients, remaining on December 31st, amounted to 622, as compared with 630 on the same date of the previous year, a decrease of 8. It may be observed in passing that a steady falling off of the numbers in Irish private asylums seems to have been going on from year to year since 1873, when the number amounted to 664. It would be interesting to know the exact cause of this.

The statistics of these institutions, according to the Inspectors, compare most favourably with public asylums, 70 cases having been discharged recovered, and 46 improved, while 36 died, a mortality of 40 per cent. below that of public asylums. With the management also the Inspectors are satisfied, with certain exceptions, to which they refer in the following terms : " Kept for private profit it cannot be fairly expected that the owners should suffer when the stipends due for the care and residence of the insane located in them are not liberal or even nominally remunerative, owing to arrears and deferred payments, the ill consequences of which are more noticeable in the indifferent and scant clothing of the patients themselves than in any other way."

Little advantage has as yet been taken of the 14th Rule of the Privy Council Code, under which paying patients, with the sanction of the Inspectors, are admitted into district asylums. This, the Inspectors consider, is due to the fact that the accommodation is almost identical for all. But under this rule no patient can be admitted where the friends are able to contribute above the cost of maintenance, nor is it to be wondered at that the numbers who contribute to the support of the insane in Irish public asylums is small, considering how very easy it is to escape all payment under the defective state of the present law, there being no one whose duty it is to see that the friends of the insane, who are able, should pay for them, nor is it possible in the case of those admitted under the Dangerous Lunatic Act to obtain any contribution for their cost.

The remainder of the report consists of statistics, but we must express our deep regret that the attempt begun in the blue book of last year to assimilate these returns in some degree with those of Scotland and England has been abandoned. Table 26 of the report of 1879, showing the number and distribution of the registered insane for a decennial period, has not again appeared. Tables No. 7 and No. 16,

showing the forms of mental disease and the causes of insanity, are returns of the total numbers in asylums, and not of the admission for the year. No percentage is given of pauper lunatics to paupers, or to the general population. What possible excuse can there be for this retrograde action? The returns, however, of the expenditure, consumption of food, and cost of wages are as usual most explicit and useful. We trust that on the completion of the labours of the Statistical Committee of the Medico-Psychological Association, and the adoption of their report, an attempt will be made to induce those engaged in the compilation of these most important and laborious tables in some degree to assimilate the subjects of their research so as to render them of scientific value for all parts of the United Kingdom.

Anthropology: An Introduction to the Study of Man and Civilisation. By EDWARD B. TYLOR, D.C.L., F.R.S., with illustrations. Macmillan, London, 1881.

No writer on anthropology is listened to with more respect than Dr. Tylor. No one has done more than he to advance "the science of man and civilisation," which is what he understands by anthropology; and his last work on this subject—the one now under notice—will add greatly to his reputation. It would be difficult, indeed, to find a book so full of instruction, and yet so pleasant and easy to read. He calls it an introduction to anthropology and he correctly describes it as not dealing with strictly technical matter, out of the reach of ordinary well-educated readers. As an "introduction to anthropology," however, Dr. Tylor's volume will be found to be very complete; while the avoidance of strictly technical matters in it is certainly a merit, and will greatly increase the number of those who read it. "The various departments of the science of man," as Dr. Tylor points out, "are extremely multifarious, ranging from body to mind, from language to music, from fire-making to morals, but they are all matters to whose nature and history every well-informed person ought to give some thought." It is, therefore, very desirable that the science should be presented to the public as Dr. Tylor presents it in this volume.

All this, and much more, in praise of the work may be said, and yet objection may be taken to some things in it,

and a wish felt that the information it furnishes on some points had been fuller and more precise.

For instance, it would have been well if Dr. Tylor had shown more clearly what he understands by the beginnings of the historic period, to which he so often makes reference. He says that "the historic ages are to be looked on as but the modern period of man's life on earth," but the length of that period is not more definitely alluded to than as "the few thousand years of recorded history." It is not made clear, however, what Dr. Tylor means by "few," nor what he means by "recorded history." And perhaps it would have been well to have pointed out that, as regards particular areas of the earth, the prehistoric is sooner entered in one area than in another ; and, further, as regards some of these areas, that the prehistoric is certainly separated from the present time by hundreds and not by thousands of years.

Dr. Tylor does not indulge in sensational statements as to the vast antiquity of man on the earth. All he asks for the duration of the prehistoric period is that it must at least have been long enough to bring about changes far greater than any known to have taken place during historical ages. But it is clear that the causes of change may be, and probably are, more active in one epoch than in another, and that the time required to bring about a change may, therefore, vary greatly in different epochs, so that we cannot even guess at the length of the prehistoric period through any knowledge we have of the time required to effect changes during the historic period.

The life of the men of the mammoth-period, Dr. Tylor says, was not man's primitive life ; but even of the remoteness of that period, which is comparatively late, no certain knowledge is yet to be had. "Some geologists," Dr. Tylor tells us, "have suggested twenty thousand years, while others say a hundred thousand or more, but these are guesses made where there is no scale to reckon time by." They are liberal guesses in a popular direction, and those who have made them have not always made it as clear, as Dr. Tylor does, that they are mere guesses and have little or no scientific value.

Dr. Tylor, however, is not always so fair and cautious. For example, he accepts as true many statements in books of travel, which to indifferent readers are at best of doubtful accuracy, when such statements give support to his views. It is not difficult to understand how this should happen ;

but it is difficult to understand why Dr. Tylor should be at pains to show that little value should be attached to the statements of travellers when these tend to weaken his views ; as, for instance, when he belittles the favourable notices given of the condition and character of savages by Shomburgk, Kops, Sir Walter Elliot, and others. "Of course," he says, "these accounts of Caribs and Papuans show them on the friendly side, while those who have fought with them call them monsters of ferocity and treachery." It would be interesting to know what, on their side, the Caribs and Papuans called those with whom they fought—those civilised Europeans who invaded their country, robbed them of their property, massacred their young men, and debauched their young women. There are more ways than one of looking at savage life, and in doing the savage justice, it is by no means necessary to fall "into the fancies of the philosophers of the last century, who set up the *noble savage* as an actual model of virtue to be imitated by civilised nations."

When Dr. Tylor says that "it is an important fact that in every region of the inhabited world ancient stone implements are found in the ground," surely the statement needed some qualification, because there exist areas in which no search has yet been made. Again, when he says that "we may see how generally skin garments used to be worn by the vast number of skin-dressing implements of sharp stone found in the ground," and refers the reader to a specimen (Fig. 54, c., p. 187), it is surely desirable to point out that this is only a guess at the use of stone implements of this form. Then again, is it going too far to doubt the usefulness of the following effort to trace the early progress of an art?

"One asks," Dr. Tylor says, "How do men first hit upon the idea of making an earthen pot? It may not look a great stretch of invention, but invention moved by slow steps in early culture, and there are some facts which lead to the guess that even pots were not made all at once. There are accounts of rude tribes plastering their wooden vessels with clay to stand the fire, while others, more advanced, moulded clay over gourds, or inside baskets, which, being then burnt away, left an earthen vase, and the marks of the plaiting remained as an ornamental pattern. It may well have been through such intermediate stages that the earliest potters came to see that they could shape the clay alone and burn it hard."

Is it not quite as probable that the steps were just the

reverse of those here indicated, and that the man accustomed to shape clay alone into vessels may have bethought himself getting a good form by plastering it over a gourd and then burning the gourd out, or of getting a decorated surface by moulding it inside a basket and then burning the basket off? We are sure that Dr. Tylor will not take offence if it is asked whether a "guess" like that just quoted, as to the steps leading up to the making of a pot, might not be properly called one of the fancies of the philosophers of the present century.

The clear and important distinction between culture and civilisation is not always maintained in Dr. Tylor's volume. "Human life," he says, "may be roughly classed into three great stages, Savage, Barbaric, Civilised," and he proceeds to define these. The *savage* state, he says, is that in which man subsists on wild plants and animals, and neither tills the soil nor domesticates animals. There is certainly low culture here; but he adds that small clans of men in this state may exist, which involves a low state of civilisation, the dawning of the *civitas*, or the banding together of men for the common weal. The *barbaric* state, according to Dr. Tylor, is that in which men have taken to agriculture and the domestication of animals. There is clearly here a higher culture, but there is also a higher civilisation, for another feature of the barbaric stage, according to him, is the establishment of settled village and town life, that is, a larger and closer binding of men together for the common good and a fuller realization of the *civitas*. The results of the establishment of the settled village and town life, Tylor says, are immense in the improvement of arts, knowledge, manners, and government. In other words, culture is the result or outcome of the civilisation. *Civilised life*, Tylor says, begins with "the art of writing, which, by recording history, law, knowledge, and religion for the service of ages to come binds together the past and the future in an unbroken chain of intellectual and moral progress." This seems to be nothing but high culture, but it is evident that there is a want of precision and completeness about this definition. It is difficult, indeed, to see what is meant by saying that "civilised life may be taken as beginning with the art of writing," which is the whole of Dr. Tylor's definition. It cannot mean that those Englishmen, who are ignorant of the art of writing, are not living in a state of high civilisation and enjoying its advantages. The fact is that all Englishmen live in the same state

of civilisation, though no two of them have exactly the same culture, and though among them there are men, to be counted by the million, who are profoundly uncultured, and who are as ferocious and brutish as any savages in the world. Men join together to form the *civitas*, and a state of civilisation is the state of an aggregate; but culture belongs strictly to the individual, who is able to get it in consequence of living in a state of civilisation. Dr. Tylor writes, and writes admirably, but, notwithstanding this, he would surely lead a life in the barbaric stage if he joined a savage tribe of the Brazilian forests, becoming a member of it. It cannot be doubted that he would then lose the advantages of the high state of civilisation in which it is his good fortune now to live, though he might keep his culture.

Dr. Tylor points out that it would be wrong to conclude that civilisation is always on the move, or that its movement is always progress. "On the contrary," he says, "history teaches that it remains stationary for long periods, and often falls back." In connection with this subject, he makes the following very important remark:—"To understand such decline of culture, it must be borne in mind that the highest arts and the most elaborate arrangements of society do not always prevail; in fact, they may be too perfect to hold their ground, *for people must have what fits their circumstances.*" The italics are not Dr. Tylor's; they are used to give emphasis to the concluding thought.

Though this notice of Dr. Tylor's "Anthropology" has dwelt chiefly on points to which objection was or might be taken, it is the notice of a book of rare merit and value, which should be in the hands of every physician engaged in the treatment of insanity.

Philosophical Classics for English Readers. Edited by WILLIAM KNIGHT, LL.D. Blackwood and Sons, 1881.

This new series proposes to deal with the principal philosophical writers of modern Europe, from Bacon and Descartes onwards. Descartes, Butler, and Berkeley have already been issued, and we can speak in strong terms of approbation of the manner in which their lives and opinions are treated by their respective editors. We hope this laudable attempt will be rewarded by a large circulation. The books merit it. We intend to review them individually in subsequent numbers.

Broadmoor Criminal Lunatic Asylum. Par M. A. MOTET, 1881.

M. Motet, having visited Broadmoor with much interest during the Congress, has written a short but excellent account of it, in order that it may contribute to the solution of the problem which has for some time occupied the French—the best mode of providing for their criminal lunatics. To the English reader also it cannot fail to be interesting to know the impression produced upon a stranger by a visit to our State criminal asylum. That impression was favourable, and he bears willing testimony to the efficient manner in which the asylum is superintended by Dr. Orange. The article by Dr. Nicolson, on the “History of Criminal Lunacy in England,” which appeared in this Journal, is largely used by the author. The officers of the institution cannot but be gratified by the kind and generous terms in which our respected *confrère* and foreign associate speaks in conclusion:—

Nous sommes revenu de Broadmoor, satisfait d'avoir trouvé la réalisation d'une idée que nous était apparue juste. Mais un sentiment plus profond et plus vif encore nous prenait tout entier. Nous avions vu cette population que les autres asiles rejettent avec raison loin d'eux, recueillie, abritée, contenue dans cet établissement d'un caractère tout spécial ; et nous avons rencontré là des hommes qui vivent au milieu d'elle, portant vaillamment l'énorme responsabilité qui pèse sur eux, acceptant avec un dévouement modeste leur rude labeur. Si les sympathies souvent affirmées devant nous de leurs collègues nationaux sont d'un haut prix pour eux, qu'ils nous permettent de leur dire que les nôtres leur sont aussi sincèrement acquises, et qu'ils trouvent à la fin de ces pages, où j'ai cherché à traduire fidèlement leur pensée, l'hommage de notre profonde estime.

On our part, the visit to Broadmoor on the 9th of August, 1881, in company with MM. Motet, Ball, Foville, Professor Hitchcock, Dr. Whitmer, Dr. Müller and others, will be always remembered as a red-letter day.

L'Alimentation. Par Dr. JULES MOREL.

This is a reprint from the “Bulletin de la Société de Médecine Mentale de Belgique,” and is an *exposé* of the principles which ought to guide the directors of public institutions in the hygienic and economic choice of nourishment. It contains also remarks on the alimentation of the insane. There is a large amount of useful information in this pamphlet, as

those who have read M. Morel's numerous valuable contributions to medicine and the *materia medica* would expect to find. There are few more laborious workers than M. Morel. We think, with him, that peptones might be given with advantage to some patients; the practical remarks on this subject by the writer, and Sanders, of Amsterdam, will be found useful.

The Responsibility of the Insane in Asylums. By J. DRAPER, M.D., Superintendent of the Vermont Asylum.

This is an excellent practical pamphlet, and should be read in connection with Dr. Campbell's paper on "Complaints by Insane Patients." We regret that lack of space prevents our extracting some of Dr. Draper's remarks.

PART III.—PSYCHOLOGICAL RETROSPECT.

1. *French Retrospect.*

By T. W. McDOWALL, M.D.

Annales Médico-Psychologiques, Nov., 1879—July, 1880.

Report on the Psychological Section of the Medical Congress at Amsterdam, September, 1879. By Dr. BILLOD.

In connection with the presidential address, Dr. Billod discussed the everlasting question of non-restraint, but without altering appreciably its position. He considers that French and English asylum physicians agree in theory, and differ in practice only in the extent to which they can do without restraint. Whilst acknowledging the organisation of English to be different from that of French asylums, he does not admit that it is better; they are only different. He comes very near the truth when he says—"Non-restraint consists much less in the abolition of means of restraint than in an asylum organisation which renders their employment unnecessary."

Dr. Billod visited five Dutch asylums without finding any patient restrained. How is this? He gives the following reasons:—

1. The patients being fed five times a day, are in a state of constant digestion—a condition tending to repose. 2. The excessive use of tobacco. 3. The character of the Dutch people. In England we are supposed to be able to do without strait-waistcoats, because—1. Of the large number of single rooms. 2. The superior character of our

attendants, and the authority with which they are invested, thus causing them to be held in awe and reverence by the patients. 3. It is a feature of English character to submit to authority, and to respect even its humblest officers. 4. Freedom is so characteristic of the nation, that we are only consistent in allowing all possible freedom to patients in asylums. 5. In the form of roast beef, beef-steak, animal food forms a large portion of the dietary. It, combined with ale, porter, produces torpidity rather than excitement.

In such questions a grain of fact is worth a pound of philosophical speculation. Dr. Billod is right when he says that the use of restraint is simply a matter of asylum organisation. Of this I had a crucial example during my visit to Denmark three years ago. On the island of Zealand there are two asylums, and they are managed on entirely different principles. Both are conducted by thoroughly competent men, who devote themselves heart and soul to their work, and who carry out their ideas of right with great consistency. Yet the contrast between the establishments is surprising. At Roskilde, Dr. Steinberg carries out the practice of non-restraint, and as one walks through the wards and grounds, one is at once reminded of asylums as they are at home. Seclusion is rarely used, and restraint almost never. This asylum receives most of its patients from Copenhagen. The cases are largely composed of general paralytics and acute maniacs due to alcohol. An entirely different system of management prevails at Vortenburg, a large asylum for the rest of the island. The management is perfect in its way, but it is thoroughly French. If, on admission, a patient is excited and destructive, he is secluded and restrained until the excitement disappears. I therefore saw a patient in every single room in the asylum, and some had been in these rooms from a few weeks to more than 20 years. It must be stated that the single rooms are much better than those in English asylums—large, airy rooms, with windows in the roof. Across these windows it is possible to draw blinds to limit the amount of light admitted. Dr. Fürste found that the amount of light influenced the excitement; the more light the more excitement. There were strait-waistcoats in abundance. It must not be imagined that all this restraint and seclusion are employed to save trouble. They are employed on principle as the best method of treatment. The staff is large—one attendant to six patients—and the supervision by the superior officers thorough and untiring. Dr. Fürste spends far more time in the wards than any English superintendent I know—on an average ten hours a day; he is evidently popular with his patients, many of whom told me that they are very kindly and considerately treated. In spite of all this, I could not help condemning a system which locks up patients for years, and I can never forget the case of an old woman, an amusing chronic maniac, who had not seen the sun or a blade of grass for more than 20 years.

My Danish experience settled the matter to my mind. Without

denying the influence of racial and other difficulties, it is certain that there is no absolute obstacle to the adoption of the non-restraint system.

The next subject discussed at the Congress was—

Mental Derangement a Reason for Divorce.

The author of the paper, M. Van der Swalme, did not bring forward any novel views. He opposed the idea that incurable insanity afforded a sufficient reason to separate man and wife.

M. Van der Lith communicated a paper entitled

Is a Classification of Mental Diseases Necessary, and upon what Basis should it be Constructed?

He does not propose a classification, he only states how it should be set about. It is to be feared that, even availing ourselves of his suggestions, we are as far off as ever from a scientifically correct and practically useful classification of mental diseases.

On Katatony.

M. Donkerslout collects, under this name, a number of cases in which the chief symptom is powerlessness to act. This powerlessness he attributes to derangement of the part of the brain which presides over movement.

Katatony is not a separate disease, but is a complication of several, *e.g.*, catalepsy, hysteria, epilepsy, and melancholy with stupor.

Dr. Billod directed attention to the same subject in a paper on diseases of the will, published in 1847.

Other matters were discussed, but they are not of sufficient interest for English readers for further space to be devoted to them.

On Claustrophobia. By Professor BALL.

We have long been familiar with the condition Agoraphobia; a very analogous, though apparently totally different state is Claustrophobia, the fear of closed spaces. Under different names this symptom of mental derangement has been described by Prof. Verga, of Milan, Dr. Meschede, and Dr. Raggi, of Boulogne.

The first example of this condition, given by Dr. Ball, is so typical, that I reproduce it in almost his own words.

In March, 1875, he was consulted by a young foreigner of the upper classes, who presented, after an attack of gleet, a typical example of the mental condition, described by M. Legrand du Saulle, under the name of *délire du toucher*. There was no sensorial delirium present, but, in consequence of the misfortune to which he had exposed himself, he had so continually thought about the inconveniences of all impure contact, that there had resulted such exaggerated scruples as to deserve the name of delirium of cleanliness.

At first he thought it wrong to touch a door handle, because possibly dirty hands might have left their mark on it. Even this indirect contamination appeared to him unbearable. Shaking hands was even more offensive, and to avoid doing so he always wore gloves. Soon the same disgust extended to all kinds of contact with any part of his body. On getting out of bed he immediately put on slippers, to avoid touching the carpet on which so many persons had walked, and so on. He was constantly washing himself. He stated that all contact gave rise to a peculiar sensation, as if his fingers had touched a sticky body, and this imaginary sensation disappeared whenever he applied even a few drops of water—a conclusive proof that his derangement was purely mental.

At Dr. Ball's second visit, another and entirely different symptom had made its appearance.

At various times—but chiefly during the night—he was seized by a sudden terror of being locked up alone. In whatever room he might be, he insisted on the doors and windows remaining open. If he were in company this feeling lost somewhat of its intensity, and in deference to his visitors he allowed the doors to be shut. But during the night his condition was much worse; he required his bedroom windows always open. He also forbade the servants to shut his room door, and even that leading to his rooms. More than once he got up during the night to make sure that his orders were carried out. At last, seized by an irresistible restlessness, he sometimes was impelled to descend into the court and even open the front door, in the middle of the night, to wander about the streets until daybreak.

At such times he declared that he experienced a constrictive agony, like what one would feel in creeping along a passage which gradually narrowed, until squeezed against the walls, one could neither advance nor retire. At this point, in a state of extreme terror, he rushed out of the house, unable to endure longer such frightful torture.

On a Secondary Symptom of Melancholia and its Treatment.

By Dr. HILDENBRAND.

Starting with the well-known statement that, as we are ignorant of the diseased processes in the nerve centres in cases of mental derangement, we must direct our treatment to the removal of the co-existing symptoms, *e.g.*, insomnia, anæmia, &c., the author explains that he desires to direct attention to one of the most common symptoms of simple melancholia, the disturbance of respiration and circulation due to the condition of the brain.

It is believed that the arrangement of the veins within the cranium is such as to favour venous congestion, but that this tendency is counteracted by the expansion of the chest in inspiration. In the melancholia, disorder of the cerebral circulation is evident. He has a great aversion to movement; his muscular system is enfeebled; the heart has partly lost its force, and respiration, which normally is as 1 to 3,

is not more than 1 to 5. It is, besides, incomplete, and the oxygenation of the blood imperfect, whence the blueness of the lips and coldness of the skin. Inspiration, being as small as possible, no longer acts by withdrawing the blood in the cerebral sinuses.

The melancholiac suffers from all the consequences of incomplete oxygenation; a slow asphyxia, and disorder of nutrition of the nerve centres is the result. Sleep is absent or unhealthy, and soon general nutrition is impaired.

In the opinion of the writer the disorder of the respiration and the consequences on the cerebral circulation are factors which deserve attention. No doubt they are secondary in time and importance, but they notably aggravate the original disease.

It is therefore necessary to make the melancholiac breathe. This may be done by work, exercise, and forced inspirations. It is stated that, as the result of the latter, the skin immediately loses its bluish colour and becomes clear.

One case was submitted to this form of treatment, and the account given of her progress is not such as to tempt any one to adopt it.

Mental Medicine throughout the Ages.

This admirable address was delivered by Dr. Ball, as the first of his lectures on mental diseases. Its matter, though not new, is well arranged, and is intended to teach the lessons summarised in the following paragraphs:—

Firstly, respect for the ancients. It is only by accurately estimating the difficulties of the subject, that we succeed in appreciating their efforts, and the immense services they have rendered us.

Secondly, the cultivation of clinical observation. Do we not see in every age great observers who have studied mental disease, and leave imperishable pictures which will remain eternally true, whilst time has dealt justly with the different theories which have in turn disputed for pre-eminence. Strive to observe well; before everything be clinical observers, and thus you will be the legitimate successors of Esquirol and Pinel.

Lastly, scepticism; and by this I do not mean that morbid disposition of mind which makes us receive with foolish ridicule all new ideas, and which would ultimately become more hurtful to the true interests of science than the most childish credulity. I mean by scepticism that negative virtue which consists in never accepting a fact without verifying it, an idea without examining it, and which teaches us never to yield until compelled by the weight of proof. Then, but not till then, we yield, with the conviction that we have not succumbed to the allurements of the imagination, but have submitted to truth alone. Through subjection to such discipline, we run the risk of never marching at the head of our age; but we have at least the advantage of never mourning over those hypotheses, whose blossoming is so rapid, and whose life is so ephemeral.

On Certain Acute Secondary Visceral Lesions in the Insane.

By Dr. E. DUFOUR.

In a paper in the "*Annales Médico-Psychologiques*," for July, 1876, Dr. Dufour showed the existence of numerous secondary visceral lesions in certain cases. Now experiments by various physiologists have proved that these lesions can be produced at will in animals by pricking or tearing certain regions of the brain, such as the peduncles, &c., in which irritation by foreign bodies causes various disorders of the pleuræ, lungs, liver, kidneys, stomach, intestines, &c. Further, some facts seem to prove that the same changes may follow mechanical irritation of the *periphery* of the cerebral organs. Are these results due to a direct action, or to transmission to the central nuclei? The question is difficult of solution, but the fact remains. Do not the phenomena of *émotivité*, which have their seat in the cerebral cortex, react in the same manner upon the splanchnic organs.

Cases have been recorded by Charcot and others, in which hæmorrhage, or congestion of the lungs, kidneys, &c., was consecutive to cerebral changes. In paralytics death is frequently due to pneumonia. One sees it occur, says A. Voisin, without known cause in patients who are confined to bed. That unknown cause consists in the various modifications of texture and circulation in the brain, which are peculiar to general paralysis. Remote organic changes also occur in epilepsy and the vesaniæ. Dr. Dufour claims that in his paper of 1876, he demonstrated their existence in the chronic state; their connection with cerebral disorders was deduced from their great frequency in lunatics; but this conclusion as to their origin was wanting in that clearness which can alone result from careful experiment, or observation of acute cases, in which the relations of cause and effect are more tangible than in the complexities inseparable from chronicity of diseases.

Of the ten cases reported in detail, it is unnecessary to give the particulars. Except the first, they are such as occur in the experience of every asylum physician—cases of general paralysis and epilepsy, in which congestion, inflammation and sanguineous extravasations are found in the thoracic and abdominal viscera. The excepted case is, however, one of much interest. The patient was a chronic lunatic, and died instantly from a kick on the head by another patient. At the post-mortem examination, extensive effusion of blood was found over the larger portion of the cerebral surface and in the ventricles. Under the pleura several extravasations were found, varying in size from a sixpence to a shilling, and penetrating into the lung tissue. Minute punctiform ecchymoses were found in the stomach and small intestines. The liver was congested, and under the capsule was one considerable blood tumour.

This case is considered to demonstrate the correlation existing between lesions of the splanchnic organs and cerebral changes, but

unfortunately the multiplicity of the latter prevent us from allotting to each its due share.

The writer is careful to state that he makes no pretensions to originality in his observations. In correlating apoplexies, pneumonias, and other visceral changes similar to those he has described with cerebral disorders, he desires to point out the close connection which unites them to the ordinary pathogeny of lesions of the splanchnic cavities of cerebral origin; whilst our predecessors appeared to see in them chiefly the results of mechanical compression during the crisis. It is well known that in animals these pulmonary ecchymoses and apoplexies occur even when the chest has been opened; they therefore cannot be solely the result of the convulsion, as Delasiauve has said.

2. *German Retrospect.*

By W. W. IRELAND, M.D.

Hemiopic Hallucinations.

Dr. A. Pick (in the "*Jahrbuch für Psychiatric*," ii., 1, quoted in the "*Centralblatt*," 1 April, 1881) records the hallucinations of a man of 28, afflicted with delusions of persecution and grandiose ideas. He imagined that he heard reproaches poured into his ear. A lady followed him with her endearments. He was electrified, magnetised; he saw shapes and visions, such as a burning house. He often heard a voice on the right side. Sometimes it disappeared as he put his finger into the ear, but then it passed to the left ear. He had hallucinations of sight, which affected only the right eye. They appeared generally in the evening, when his eyes were shut, but sometimes after awakening. These hallucinations disappeared when he opened his eyes. He often saw portions of figures, heads, or feet, generally the upper part of men, or objects which were sharply defined off against a dark ground. There was found to be a broad spot in the right eye, where sight was deficient, without any positive lesion. Dr. Pick places the seat of the lesion in the inner side of the left optic tract, behind the chiasma of the optic nerve. He observes that if the lesion had been nearer the cerebrum the defect of vision would have affected both eyes.

Nerve-Stretching in Facial Neuralgia.

Dr. Julius Janny ("*Centralblatt für Nervenheilkunde*, 15 Februar, 1881) records the case of a woman forty-four years of age, the wife of a day labourer, who suffered for two years from tic douloureux of the right side of the head. Thinking that the pains proceeded from the irritation of the teeth, she got them all extracted, but they became worse instead of better; and at last the neuralgia came on in such fearful paroxysms that her life became unendurable. It was found

that the painful points were at the issue of the supra-orbital, frontal, infra-orbital, and inferior alveolar nerves. On the 7th of September, 1880, the operation of stretching was performed on the supra-orbital and frontal nerves, and four days later it was performed in the infra-orbital and mental nerves. The incisions, treated in the antiseptic method, healed by the first intention, and the pain ceased altogether. On the 21st of the same month the patient was dismissed quite cured. The operator stretched the nerve with pincers, the extremities of which were covered with indiarubber.

Examination of a Spinal Cord after Nerve-Stretching.

Dr. Westphal has communicated to the "Berlin Klinische Wochenschrift" (1881, No. 8) the result of the examination of the spinal cord of a man who had died after the operation of nerve-stretching. The patient had suffered from considerable ataxia of the lower extremities, diminished normal sensibility, with severe pains in the lower limbs, all of which symptoms were well nigh wholly removed by the operation of nerve-stretching, which was performed by Dr. Langenbech; but as the same symptoms appeared in a more moderate degree in the arms, it was resolved, three months later, to perform the same operation upon the brachial nerves. The patient died from an epileptic fit while under chloroform. Langenbech sent the spinal cord to Westphal, but after a minute and careful examination, no alteration indicating disease could be found. Westphal asks, Are there many such cases, where the disease exists in the nerves while the disease of the posterior columns of the cords is a later condition? He affirms that in all cases which have come to dissection, and where the cause has been carefully examined, degeneration of the posterior columns have been found. Westphal refers to the case published by Doctors Plaxton and Bevan Lewis in the "Journal of Mental Science," July, 1878, p. 274, in which there was a progressive locomotor ataxia lasting for five years, at the end of which insanity suddenly supervened. He complains that in this case, as in that of Langenbech, the spinal symptoms are given in too little detail, so that one cannot form a correct judgment upon them. Langenbech is inclined to view his case as one where the peripheral nerves were alone affected, but where, perhaps, the spinal cord might in time be involved. Westphal does not think that we should abstain from nerve-stretching, even when it appears from all the symptoms that there is organic disease of the cord.

Mental Disorder caused by Alternation of Heat and Cold.

Dr. Reich (quoted in "Centralblatt für Nervenheilkunde," No. 6, 1881) tells us of four boys, from six to ten years of age, who were exposed in a sledge to cold of from sixteen to twenty-two degrees below zero; and being suddenly introduced into a room heated by a stove, they showed symptoms of mental derangement, lasting for several hours. There were maniacal excitement, delirium, and hallu-

cinations. This condition passed off with a long sleep, and on awakening they retained no recollection of the mental disorder. It is supposed to have been caused by an alteration in the cerebral circulation induced by the rapid change from cold to heat.

Self-Extirpation of the Tongue.

Dr. E. Flügge ("Archiv," XI. Band, 1 Heft) gives an account of a married woman, forty-five years of age, who, at the cessation of the catamenia, became restless and suicidal, finally passing into a maniacal condition, with exaltation of the sexual feelings, and visions of a religious and erotic character, such as "She was going to have a son to God." On being brought into the asylum at Ueckermunde, she appeared to be a little emaciated woman. She was put into a cell, naked, and was very violent for two days. On the attendant returning, after a short absence, a bloody lump was seen on the floor. On examination it was found to be the tongue, which she had entirely torn away with her hands alone. No more than a wine glass of blood came from the mouth, though it is likely she swallowed some. In stuttering voice, which was with difficulty understood, she said that a voice from God had called upon her, either to kill herself or tear out a limb, and that the devil had sitten upon her tongue, on which account she had torn it away. She could not recollect how she did it. Dr. Flügge is inclined to think that she pushed her fingers into the mouth down to the epiglottis, ran the nails into the muscular tissue, and then, with a powerful jerk, tore away the tongue from all its connections. Though the tongue was entirely carried away with some of the glosso-epiglottidean ligaments, the woman was from the beginning able to speak—at first, both indistinctly and with pain, but in the course of three months with a distinctness truly wonderful under the circumstances. Dr. Flügge describes the speech as monotonous, wanting in modulation, but capable of being understood, even by those not accustomed to hear her. In three months the wound had entirely healed, the excitement and delusions ceased, and she seemed in the fair way of recovery. He quotes, from Kussmaul, Twisloten, and Zacchias, instances of people who had lost, greater or less, portions of the tongue, and who retained the power of speaking in a manner which could be at least understood.

Lyell and Huxley examined a man in whom the tongue was cut out on account of cancer, and in six months he could make himself understood, though he was unable to pronounce the sounds of D, T, and L.

Paget found similar results in six cases, where the tongue was removed.

Dr. Flügge believes that in his patient the tongue was more completely extirpated than in any previously described. He observes that the pronunciation of D, T, L, S, and N is injured at the beginning and end of words; whilst L is pronounced H; T, and D are pro-

nounced with the greatest distinctness. The utterance of the labials and gutturals is unaffected. The most difficult words to pronounce are those where there are several linguals, or several consonants, following one another.

Hyoscyamine in Mania and Epilepsy.

Dr. Reinhard ("Archiv," XI. Band, 2 Heft), after experimenting in the asylum of Dalldorf upon the effects of hyoscyamine for insane and epileptic patients, has arrived at the following conclusions:—

1. That this drug has in many cases the effect of tranquillising and shortening the duration of mania and delirium. It seems to be most successful where the excitement accompanies disturbed menstruation.

2. Its influence upon epilepsy is, occasionally, so far favourable that it diminishes the number and intensity of the attacks. Its favourable influence may be expected where the pulse is small and jerking.

3. In epilepsy it occasionally diminishes the number and violence of the fits.

4. Affections of the vessels, heart, and lungs are contra-indications. On account of its effects on the heart and general nutrition, hyoscyamine cannot be used continuously for a long time. The principal danger lies in the drug paralysing the heart.

5. As a general rule, we can only assign a moderate value to the therapeutic effects of hyoscyamine.

3. American and Colonial Retrospect.

By D. HACK TUKE, M.D.

The Alienist and Neurologist. Edited by Dr. HUGHES, Vols. I. and II.

We have already taken occasion to refer to this new Journal of medical psychology with approval, and will now briefly indicate some of the most important matter contained in the volumes now published. The opinions of an esteemed and experienced superintendent, Dr. Curwen, on the construction and organization of asylums, are given in an article in which he takes as his text the propositions issued some years ago by the Association of Superintendents of American Hospitals for the Insane. They may be summarised as follows:—"That every lunatic hospital should be in the country; the large States being divided into geographical districts, of such size that a hospital, situated at or near the centre of the district, will be practically accessible to all the people living within its boundaries. That no hospital should have less than 50 acres of land devoted to gardens and pleasure grounds, and every State Hospital for 200 patients, at least 100 acres. That means should be provided to raise 10,000 gallons of water daily to reservoirs that will supply the highest parts of the building. That no hospital should be built without the plan having been first sub-

mitted to some physician having had charge of a similar establishment or practically acquainted with the details of their arrangements. That these institutions, especially if provided at the public cost, should always be of a plain but substantial character; and while characterized by good taste, and furnished with everything essential to the health and comfort and successful treatment of the patients, all extravagant embellishments and every unnecessary expenditure should be avoided."

The last proposition is rather stern as it stands; true as it would be if the word "especially" were omitted, and softened by Dr. Curwen's commentary, that the interior of the building should be adorned with everything that can tend to give pleasure to the eye, diversion to the mind, and a feeling of general contentment and satisfaction to the individual.

"That the highest number that can with propriety be treated in one building is 250, while 200 is a preferable maximum." Dr. Curwen observes that motives of expediency led to the adoption, in 1866, of the proposition that, under certain circumstances specified, 600 patients may be accommodated in one building. Dr. Curwen cannot reconcile a large asylum with another proposition of the Association, namely, "that the superintendent should have the entire control of the medical, moral, and dietetic treatment of the patients; the unreserved power of appointment and discharge of all persons engaged in their care; and should exercise a general supervision and direction of every department of the institution." It is to be hoped that the Americans will be able to keep within this limit, and so avoid the disadvantages attendant on our colossal asylums. But it is to be feared that the day may come when motives of expediency will again prevail, and raise the population of asylums in America above 600. We think that Dr. Curwen, in his laudable desire to insist upon the duties of his office being minutely complied with, exacts more than is necessary, when he requires a careful daily visit to all the patients under his charge, so as to be familiar with their mental and physical condition. He thinks this duty should not be delegated. With one or more dependable assistant medical officers, however, we consider a superintendent does wisely to reserve his time and energies for the recent or most pressing cases; his assistants relieving him of the constant oversight of the chronic and stationary patients. In fact, both in this point and in the non-medical affairs of the establishment, the rôle of the superintendent is that of the Centurion. He should be able to say do this or that, and go here or there, with the fullest authority, without having necessarily to do or go himself. Division of labour does not mean divided authority. Not a few men make excellent *medical* superintendents, who have no capacity for superintending farm operations, or financial matters.

The editor contributes an important clinical inquiry into the significance of absent patellar tendon reflex. After insisting that this absence is consistent with health, he gives a series of cases in which

the tendon reflex phenomenon was either absent or exaggerated. From these Dr. Hughes concludes that while the absence of this reflex is often significant as an associated symptom of present locomotor ataxia, and may even serve, when unassociated, to excite suspicion of its approach, we are not justified in regarding it, when it is the only phenomenon observable, as a certain *sign*; or when it is absent, and the other symptoms are present, in excluding a diagnosis of posterior sclerosis. Exaggerated excitability is observed, as pointed out by Dr. Hughes, in some cases of loco-motor ataxy. It is explicable probably by the existence of lateral sclerosis as well: so that the general rule, if broken, is accounted for.

On this subject there is a valuable article in Seguin's "Archives of Medicine," Aug., 1881, by Dr. Shaw.

Dr. Pliny Earle gives the subsequent history of twenty-five persons reported recovered from insanity in 1843. It is an instructive study. It is founded on a table of the Worcester Lunatic Hospital for 1844, showing, or apparently showing, the advantage, pecuniarily, of the treatment of the disease in its early stage. Dr. Earle, with the remorseless criticism which characterises his statistical researches, ascertained the history, subsequent to their discharge, of these recovered patients. The importance of the table depends, in great measure, on the assumption that they were all cured. The inference is also to be drawn that if twenty-five other cases which were chronic, had been only placed in time under care, they would have recovered, and cost some 58 dollars each, like the recent cases, instead of 2,166 dollars each, the actual average cost.

Dr. Earle found that the 25 recovered patients recovered not once only, but 48 times. Five subsequently died. Taking for the purpose of comparison Dr. Thurnam's well-known formula, part of which enunciates that two-fifths of the persons who recover should never have another attack; three-fifths should have a second attack; and two-thirds of that three-fifths should die insane, Dr. Earle points out that of the 25 persons recovered—

- (a) 10 should never have a second attack.
- (b) 15 should have a second attack, and perhaps more; and
- (c) of these 15, ten should die insane.

But we find that in fact, taking the 25 persons at the time of their first recovery, there were, under the most favourable construction—

- (a) only 7 who did not have a second attack; and
- (b) 18 had more than one attack.

(c) As so many are still living, it is impossible to say what will be the final result in regard to the number dying insane. But already five have died insane at the hospitals, and two have died insane at home—two others at almshouses, both having for a long period been incurably insane, and one has died at home who was never well (sane) but a few months at a time.

As Dr. Earle truly observes, "It is no exaggeration of the un-

pleasant aspects of these results to say that they are no more favourable than Dr. Thurnam's formula represents. Their near approximation to that formula is somewhat remarkable."

Turning to another subject, the question is raised by a citation from Brown-Séquard, in the "*Gazette Hebdom.*," whether the spinal cord can inhibit the brain, and it is shown that it can.

"Inhibitory influence exercised by the spinal cord or the sciatic nerve upon the encephalon, of the opposite side."

"The section of a sciatic nerve, or of a lateral half of the spinal cord in the dog, the rabbit, and the "cobaye," produces remarkable effects. There is, immediately afterwards, a diminution, sometimes even the loss of all excitability by galvanism in one or several points of the encephalon, of the side opposite to that of the lesion of the sciatic or of the cord."

Not altogether foreign to this point is a paper by Dr. Ott, in the "*Journal of Nervous and Mental Disease*," April, 1879, on "*Retrograde and Lateral Movements with Hypnotism*." He notes that Dr. Weir Mitchell found that when cold (rhigolene) is applied to the back of the neck in pigeons, they exhibit retrograde movements, alternating with fits of stupor. Dr. Ott found that bisulphide of carbon had the same effect. He thinks there is an analogy between this and the hypnotism of a pigeon by laying it on its back and rubbing it softly in the parotid region, after Czermak's method. He says, "It strikes me that this hypnotic state can be explained by sensory irritation, produced by the bisulphide of carbon calling ganglia at the base of the brain into activity, which ganglia have an inhibitory power. That sensory irritation may come into play is shown by Lewissou's experiments with the frog, where simply tying his anterior extremities, and, placing him on his back, keeps him in a state of quietude. The rapid breathing also indicates a strong sensory irritation. In my experiments, the temporary irritation explains the temporary hypnotism; with this method of viewing matters, the phenomena of hypnotism have nothing to do with the cerebrum, but are caused by ganglia at the base of the brain inhibiting the will."*

The Trance State in Inebriety: Its Medico-Legal Relations By T. D. CROTHERS, M.D., Supt. of Walnut Lodge, Hartford, Conn.

This reprint of a paper, read before the Medico-Legal Society of New York City, Nov. 2, 1881, contains some important cases illus-

* "*On Inhibition of the Will*," see Romanes and Heidenhain, "*Animal Magnetism*," 1880. "The truth appears to be that in Hypnotism we are approaching a completely new field of physiological research, in the cultivation of which our previous knowledge of inhibition may properly be taken as the starting point."—Romanes. "It appears to me that the hypothesis that the cause of the phenomena of hypnotism lies in the inhibition of the activity of the ganglion-cells of the cerebral cortex is not a too adventurous one; the inhibition being brought about by gentle prolonged stimulation of the sensory nerves of the face, or of the auditory or optic nerve," p. 49.

trating the writer's conclusion that the trance state is a symptom in inebriety, in which the patient is without consciousness and recollection of present events, and gives no general evidence of his real condition. It may last from a few moments to several days. Dr. Crothers maintains that in all chronic states of inebriety, it will be found present in a greater or less degree.

There can be no doubt that lapses of consciousness, without apparent unconsciousness, occurring in inebriates have not been sufficiently recognised and deserve more careful study. To this end, the present paper will contribute valuable assistance.

The Plea of Insanity in Canada. ("Montreal Gazette," Oct. 4 to 7, 1881.)

Great excitement, it seems, has been caused at Montreal by the trial of Hayvren, aged 28, a convict of the St. Vincent de Paul Penitentiary, for the murder of Salter, another convict, in the prison, on the 29th of June last. The deceased was coming out of the dining-hall, when he was met by Hayvren, who seized him around the neck and struck him in the breast with a knife. He shortly afterwards died. Hayvren then said that Salter would not call him a bad name again. It did not appear that any words had been exchanged between them. The prisoner was in a great passion when required to give up his knife. He was in the prison for robbery. The physician to the Penitentiary (Dr. Pomerville), stated that when prisoner came he was sick, suffering from a jump of thirty feet made in escaping from Montreal jail; he suffered greatly in the back; he recovered, and was set to work; about a year after he came to the doctor to complain that his digestion was bad, and that he felt pains in the stomach caused by the heavy food of the Penitentiary. On examination, he found a dilatation of the abdominal aorta, which was caused by the fall. He was in this condition at the time of the murder, but not prevented doing his work. He considered his dyspepsia was caused by intemperance. Dr. Pomerville did not consider that his bodily ailments had any effect upon the brain.

The prisoner's mother said he was, when seven years old, subject to fits twice a week during one year; a year after he recovered, "but remained distracted in reason." He would not go to school, and began drinking very young, and was often brought home drunk at 16. In that state he was outrageous, and walked round the house on his hands like a wild man. She did not think it necessary to call a doctor to attend to him when in fits; she had more faith in the Church and the Gospels read over him. Sometimes he had to be tied. When he recovered from the fits he would look wild. He only attended about six months out of the three years' schooling she gave him. His father is living. An uncle of the prisoner's confirmed the preceding evidence as to fits, and said he used to have mad fits even when sober during the last four or five years. One of the convicts stated that a

few days before the murder prisoner went up to him and, opening his shirt, asked him to run his knife through his breast. Several other convicts gave similar evidence.

Prisoner had been imprisoned two-and-twenty times before. He had been about a year in the prison, but had had no fits during that time.

The defence of insanity set up for the prisoner was supported by Dr. Howard, of Montreal. We give his evidence slightly abbreviated.

Henry Howard, M.D., was then sworn, and said he was M.R.C.S. England; was superintendent of St. John's Lunatic Asylum for fourteen years, and for four years superintendent of the Longue Pointe Asylum. He was then the only responsible physician of the institution. The patients averaged from 500 to 600 yearly. During the time he was at St. John's he had eighty beds. He retained only insane persons, whom he treated on scientific principles. Some 600 patients passed through his hands while there. They were all cases of confirmed insanity. As practising physician, about 3,000 patients passed through his hands at Longue Pointe. He now holds the position of Government visiting physician at the Longue Pointe Asylum. The Provincial Secretary sends him all the applications for admission for him to report on. He inspects patients twice a week. Those admitted during the month he reports on the 1st of the following month to the Provincial Secretary as to their mental state. Knows prisoner at the bar. First saw him on the 26th August, 1881, at the Montreal Prison, for the purpose of examining him and reporting on his mental state; and at the invitation of his counsel witness made a careful examination of prisoner's person and mind. Witness said he had previously heard the history of prisoner as to his conduct, and it was the conduct of a man who was insane. Witness read all the evidence taken at the coroner's inquest. Witness found prisoner had a bad record from youth up. As to the conduct of the prisoner, from private friends, public and police reports, I found of the man's conduct a very bad record indeed. From the first I discovered him to have been an habitual inebriate from his youth upwards; from police reports, constantly in prison; and, lastly, sentenced for five years to the Penitentiary. While in the Montreal Prison, previous to his removal to St. Vincent de Paul, he attempted to escape through a sky-light by means of a small cord, which broke, causing him to fall into the yard, a distance of about thirty feet. Up to that time the whole conduct of the man has been the conduct of one insane, a man acting from epileptic impulse, and not from reason. It was natural for the man to try and escape from prison. We find the insane in lunatic asylums all over the world trying every day to escape, and very frequently successfully; but the means employed for the end prove the fool. No intelligent man of the size and weight of Hayven would venture his life with the piece of small cord which he used. It will be said that, although he did fall, he did not lose his life, or even break a bone. True, he did not; but that he will not die from the effects of that fall is a question yet to be solved. At all events, we next find him in the infirmary of the Penitentiary under medical treatment, at which time he requests Peter McGauvren to take a club and strike him with it on the back of the head. He made many other strange requests to this man, so that Peter McGauvren, who said he at first thought he was joking, finally concluded that the man was mad. Why? From his conduct. . . . The murder was just such an impulsive act as an insane man with a homicidal tendency would commit. Had the man been capable of thinking or reasoning for one single moment, he must have seen the total impossibility of his escaping from the consequences; and such consequences!—the prospect between hanging or being locked up for life in a lunatic asylum. But, like all insane persons, he did not think; that is to say, he did not think intelligently, because he could not,

Premeditation is no more a proof of a man's sanity than is the right and wrong test which so long disgraced our statute books. . . .

Dr. Howard proceeds to observe:—What was Hayvren's conduct after the crime? He makes a poor attempt at committing suicide, showing that, like all insane persons, he was a moral coward—he wants to die, or thinks he does; like when he wanted McGauvren to strike him on the head. Then, when the kind-hearted acting-warder goes to him for the knife, he actually tries to get that officer to shoot him, all only positive proof that, like all insane persons, the man was a moral coward. But then we have the testimony of the Rev. Father Knox, who obtained the knife from Hayvren, that when he saw the man in his cell he was a raving maniac. Now, the testimony of such a clear-headed, educated, scientific gentleman in such a case and under such circumstances is of more value than the testimony of all the prisoners and guardians in the Penitentiary. True, we have the respected physician of the Penitentiary, Dr. Pominville, who stated that he never saw any sign of insanity in the man, which I am bound to believe, but it does not appear in evidence that he saw him immediately after the crime; and I can very well understand that in his very responsible position, and having the charge of the health of so many persons to look after every hour of the day, unless his attention had been particularly drawn to the mental state of Hayvren, he would not have observed any symptoms of insanity in the man. I made the personal examination of Hayvren on the 26th of August, 1881. I visited Hayvren in the prison of Montreal. On the first view of the man I was struck with the pallor of his countenance, one great proof of the epileptic neurosis. [Explains neurosis as a man's peculiar nervous state from heredity, or he may make it for himself by drink.] Remembering the physiological fact that "the face was the index to the mind," I studied it well, not only when I was speaking to him, but while conversing with Mr. Payette. It was a blank face to look upon. It did not reveal intelligence. Moral, insane cowardice was portrayed on it; intellectual and moral imbecility was stamped there. I said to myself, "Surely that man is the victim of his organisation. Evil to him is good; he is intellectually and morally insane—a veritable imbecile." Psychologically, there was not much to be observed. He spoke but very little, and that little did not show intelligence. He said "There was something alive in his belly," which he asked the doctor to cut out. In reply to the question "Did he sleep?" he answered, "No, he could not sleep." He complained of being tired; he wished to sleep. Here I may remark that when I asked the keepers in charge if he slept, I was told he was seen every half-hour, and whenever spoken to always answered, showing that he did not sleep. Want of sleep—that is, insomnia—is one of the most marked symptoms of insanity. His manner portrayed nervous excitability, picking up bits of thread and dividing every fibre. He did not attempt playing a maniac, but all his words and actions portrayed a creature of impulse, who would be guilty of any impulsive act. In my pathological examination I found not only his face but his whole body anæmic; that is to say, he was not making sufficient blood for the healthy support of his system. Perspiration was pouring from every pore in his body, cold and clammy. His pupils were round in shape, but sluggish in action. His organs of locomotion were *normal*; that is, there was no paralysis of the motor nerves. Pulse, 110; normal pulse would be about 70; temperature, 93 4-5; normal temperature, 98 2-5; respiration, 36; normal respiration, 18. Radial artery—that is, the pulse in his wrist—was observable, and could be seen pulsating. Abdominal aorta—that is, the large main artery from the heart—was clearly visible when he stood, sat, or lay in a recumbent position. This is the something alive in his bowels which he wished removed. Five days after, on the 31st of August, my examination was continued. I found his pulse at 100; temperature, 92 2-5; respiration, 36. Heart sound at base, normal; at arch of aorta, sound like a bellows. Apex of heart: First sound strong, second weak; sound in the abdominal aorta, abnormal. These are the sounds that Dr. Pominville so ably described to you, and are frequently found in persons of an epileptic neurosis; but they may be

early symptoms of aneurism. Here, however, is an abnormal state of the vascular system, of which the proprietor is not to be envied, caused, probably, by his fall from the roof of the prison; but whatever the cause, it is sufficient to produce, at least, functional derangement of the mental organisation, if not organic, to account for the man's actions. And then, when we consider what a weak mind he has proved himself always to have had, it is the easier to understand what havoc such a diseased vascular system would produce upon such a mental organisation. I examined the nervous system by means of electro-magnetism and an æsthesiometer. I found all the motor nerves normal, but I found all the sensory nerves *abnormal*; that is to say, analgesic, partially paralysed. Judging the mental state of John Hayven by his conduct, by his physiological symptoms, by his psychological symptoms, by his pathological symptoms, I do not hesitate to declare him to be a man of unsound mental organisation, that he is intellectually and morally insane—a mere creature of impulse; and if he did kill Thomas Salter in the manner in which he is said to have done, he killed him while labouring under an insane epileptiform uncontrollable impulse, for which he is not responsible: and I consider the cause of his mental aberration to be due to three causes—1st, it is hereditary; 2nd, to the fact of his being an inebriate from his youth up; and, 3rd, that it has been aggravated by his fall from the roof of the gaol previous to his having committed the crime of which he is accused.

Dr. Angus McDonald next testified, and said he had made a partial examination of the prisoner, and he considered him an insane man, and that he was so on the 29th August last. He corroborated part of Dr. Howard's evidence.

Edmond Robillard, M.D., testified that he was Government Inspector of Insanity at the Montreal Gaol. He examined the prisoner on the 17th, 19th, 20th, 21st, 22nd, and 23rd September. Prisoner was nervous and uncomfortable, and showed reluctance to converse. However, he said he did not suffer from headache. During the two or three first visits his pulse was agitated, and he was in perspiration. At the end of each examination his pulse would fall to 70 or 72, and the perspiration would all cease, as if his fright was over. At each visit prisoner said he was all right, except that he had something in his abdomen which pained him. The muscular system was that of a strong man. Witness also discovered the dilatation of the aorta. Prisoner's respiration was at 18 or 19, and was natural. Witness, after being with the prisoner for some time, did not deem it necessary to further test it, as it was normal; all the perspiration had been caused by fright at the sight of a stranger. In answer to numerous questions witness put to prisoner, he replied that his father and mother lived in Bonaventure Street, and kept a candy shop, and that he was unmarried, and had no inclinations to matrimony. Witness asked prisoner why he had killed Salter, but he always answered, "I do not know," and could not be brought to speak on this question very much. At another examination witness asked him if he knew Salter was dead, and he answered he did not know. Prisoner said he drank whisky. Witness came to the conclusion that he was a very wicked man, with greatly perverted morals, and would do anything to attain his object. Witness did not see any symptoms of epilepsy. Prisoner can distinguish right from wrong. Witness is of opinion that half of the epileptics become insane. Uncontrollable impulses are very rarely met with in imbeciles or idiots. An epileptic does not remember what he does during one of these uncontrollable impulses. Witness was of opinion that prisoner was perfectly conscious of his act, but that immediately after he became greatly excited, and this fact moved his dormant impulses. Witness was of opinion that prisoner was neither an imbecile nor an idiot, but that the muddle in which he passed the greater part of his life made of him a most depraved character.

Arthur Vallee, M.D., of Quebec, visiting physician of the Beauport Asylum, was next called. After hearing all the evidence produced at this trial, he was of opinion that the prisoner was not insane at the moment he committed the deed, and was perfectly able to distinguish between right and wrong. A man

whose temperature is at 95½ must be suffering greatly.* At Beauport Asylum the epileptic maniacs are considered the most dangerous. In cases of epileptic fits the impulses are momentary; the acts are automatic, violent, and without motive. An epileptic man never remembers the acts he has committed. Imbeciles are subject to these uncontrollable impulses. Witness had observed the appearance in court of the prisoner, and had found that he manifested a great indifference, but at moments when pointed remarks were made witness observed that prisoner paid greater attention.

Dr. Vallee was cross-examined by Mr. Curran. He said he had followed the study of his profession in Paris under Professor Charcot, one of the authorities on nervous matters. In London he had attended St. Thomas Hospital. He was physician of Beauport Asylum for two years. Has had occasion to use the electro-magnetic instrument. There are insane people who appear sane to any one except to the physicians. Insane people are sometimes endowed with cunningness.

William Gardner, M.D., next testified—Has practised his profession for sixteen years, and is Professor of Medical Jurisprudence at McGill College for one year. Has known Dr. Howard for five years, and has heard him read papers on the subject of insanity. He has the reputation of knowing his subject very well, but of holding extreme views, especially on symptoms. There were no facts in the evidence to warrant witness in saying prisoner is an epileptic maniac or imbecile, but he is certainly stupid, and of a low order of intelligence. From the evidence witness has heard he would not have made such a diagnosis as Dr. Howard's, but had he, he would consider him a fit subject for an insane asylum. He himself would not have sent him to a lunatic asylum. Witness is of the opinion that prisoner can distinguish between right and wrong. It is possible to be partially insane or monomaniac. Insomnia is not a sign of insanity. Witness was not of opinion that all the isolated symptoms combined would not produce insanity; witness in all his experience and reading never saw a case where the temperature was so low, except in cases where death was impending.

Cross-examined (to Mr. Curran)—Never was connected with an insane asylum. Has treated about thirty insane patients.

Charles Cameron, M.D., next testified—Has been practising for eight years, five of which he passed in the Montreal General Hospital. Is Professor of Medical Jurisprudence at Bishop's College. Having heard the evidence of Dr. Howard, he was of opinion that the prisoner was not insane, nor was he an epileptic maniac. Has heard nothing to prove that the prisoner was incapable of distinguishing right from wrong on the 29th June last.

Cross-examined (to Mr. Curran)—Agreed with Dr. Gardner on the subject of low temperature. The lowest degree of temperature on record is 92 1-5.

Dr. Howard was called by the Court, and said that on the 29th June prisoner was able to distinguish between right and wrong, but that he was labouring under an uncontrollable impulse.

Mr. Justice Monk, in his charge, said—The killing of Salter by Hayvren, the prisoner, was proved beyond doubt, and was admitted by the counsel for the defence. The remark that the crime was only manslaughter had no foundation at all. There was murder or there was not. It had been proved beyond doubt that there was premeditation and malice aforethought. Hayvren prepared his knife, waited for his victim, and executed his crime most effectually. The deed was one of the most skilfully performed tragedies on record. The preparation of the instrument which was to pierce the heart was also artistically effected. But there arises another point, and that is the plea of insanity. It is the opinion of enthusiastic scientists that insanity is on the increase. It is admitted by the physicians that he could discern between right and wrong. The convulsions have not been shown to have been epileptic fits. Dr. Howard is a man of great

* We have given the temperatures as they are printed in the newspaper, revised by a medical man on the spot.—[EDS.]

experience, but he is one of those scientific enthusiasts whose mind on this subject is formed of many theories ; and it was for them to decide whether it is corroborated by facts. It is the first time that the prisoner is known to have had an uncontrollable impulse. It is strange that in the whole period of his criminal life he should have chosen the moment when he was in possession of a deadly weapon and premeditated the assassination of the man whose murder he accomplished. His opinion was that the prisoner at the bar was guilty of the murder of Salter, and he had no faith at all in the plea of uncontrollable impulse, which, after all, has never been admitted in Canada, and only in special cases in England.

In answer to the usual question, the jury replied that they had found Hugh Hayvren guilty of murder.

Mr. Davidson—I move that a sentence of death be now passed upon the prisoner at the bar.

His Honour, Mr. Justice Monk, then entered his apartments, and shortly returned with his black three-cornered hat. The most profound silence reigned when Mr. Schiller, Clerk of the Crown, asked the prisoner if he had anything to say why sentence of death be not now passed upon him. The prisoner indifferently answered, "No ; I have nothing to say."

The sentence of death was then pronounced by his Honour, Mr. Justice Monk, as follows :—"You have been charged with the crime of wilful murder. Your case has been tried with evident intelligence on the part of the jury, and you have been found guilty. The trial has been prolonged for four days, and during that time your counsel has defended you with marked zeal, and every possible ground of defence has been urged in your behalf. With the verdict rendered I entirely agree. I can hold out no hope of mercy. I am not on this occasion going to make any remarks upon your past life. I counsel you to make your peace with God. The duty of the Court now is to pass sentence of death upon you. You will be taken hence to the common gaol, there to remain until the 9th of December, to be taken thence to the place of execution, and hanged by the neck until you are dead ; and may God have mercy on your soul."

The prisoner exhibited hardly any emotion, and was, perhaps, cooler than any of the spectators of the dread scene. Immediately on the sentence being pronounced he turned his back and addressed a few words laughingly to one of the guards.

Legal opinion in regard to the test of insanity does not appear to have made so much progress in Canada as in some of the States of America, where the test of knowledge of right and wrong has been departed from in a marked manner. Dr. Howard, who has had long experience of the insane, has done good service by ventilating more advanced views on the subject. We hesitate to express a decided opinion on the irresponsibility of this particular prisoner, seeing that several physicians on the spot differed from the conclusion arrived at by Dr. Howard, that he was insane and unaccountable. At the same time the history of the case strongly suggests epilepsy, and the intemperate habits were probably symptoms rather than causes of the low mental condition present. The absence of motive for the crime is a striking feature of the case, as well as the prisoner's indifference to the verdict pronounced upon him.

The Asylum Journal. Berbice, British Guiana.

This Journal, which issues from the Lunatic Asylum, Fort Canje, Berbice, of which Dr. Grieve is the Superintendent, is devoted not

only to the proceedings of the asylum, but contains short papers on subjects of general medical and hygienic interest. We wish it every success.

*Report of the Inspector-General of the Insane, New South Wales, 1881.**

Dr. Manning, in his able and interesting review of the cause and progress of lunacy during the year 1880, in the colony of which he has the official supervision, is again compelled to report both an increase in the number of the insane, and a very unfortunate discrepancy between the gross number under care and the cubical space of building available for their accommodation.

The burden of insanity which, in the mother country, is becoming yearly more oppressive, and is barely met by adequate increase of provision, seems to be overtaking the colonies, and finding them unprepared for its incidence. The dormitory accommodation provided by the Colony of New South Wales, in hospitals at the end of 1880, was for 1,634 patients only, whereas 1,964 were being maintained therein, showing the total number in excess of the accommodation to be 330.

New buildings are in course of construction in several parts of the Colony, but, from the fact that no vote for extraordinary lunacy expenditure was taken last year, these works are proceeding very slowly indeed, and when they are completed, we are told they will do little more than meet the demand which will be entailed by the necessary disuse of existing buildings which are old, dangerous, and unfit for use.

How bad some of these buildings are may be gathered from the descriptions of Dr. Manning, and of the superintendents of the various asylums whose reports he appends.

The official visitors, too, appointed by the Government, describe some of the buildings in the division for the sick at the Gladesville Hospital, as "hovels intensely wretched, and unfit for human habitation." They also state that "the woodwork of the main centre building is rotten throughout, and the floors in a lamentable condition of disrepair."

Dr. Manning, with reference to the same building, says, "the condition of the walls, floors, and ceilings is becoming very bad indeed, the joists and flooring boards are rotten, the water used in cleansing and the urine soak to the ceilings below, and cause them to fall, and plaster is dropping off the walls in many places. Requisitions for the repair of these floors were forwarded a long time ago, and unless something is done, serious accidents will follow."

These requisitions seem to be constantly made, and either from impecuniosity, redtapism, or negligence, as constantly ignored. It

* Contributed to this section by Dr. Needham.

is really disgraceful that adequate provision is not made for the insane of the Colony by those who are entrusted with its government, and it must be most discouraging to Dr. Manning and the several gentlemen who have the superintendence of the hospitals for the insane, to be embarrassed by difficulties which involve the extinction of the first elements of success in the treatment of the insane.

One result of the overcrowding of the wards of these hospitals appears to be, as might reasonably be expected, the existence of faulty habits among the patients, to a larger extent than is usual in most well-managed asylums in Great Britain, and an amount of restraint which, although not absolutely large, might probably be materially decreased by altered surroundings and all that they would imply.

Various expedients appear to have been adopted or suggested to get rid of some of the sorts of overcrowding. The law provides for the boarding out of patients, and attempts have been made to introduce this system into the lunacy procedure of the Colony; but Dr. Manning reports that, although he has drawn the attention of the various superintendents to this mode of treatment, no advantage has yet been taken of it; a fact which, as he thinks, evidences the difficulty which is experienced in the selection of suitable cases. It must, however, be mentioned in explanation of this difficulty, which could have been scarcely supposed to exist to so absolute an extent, that the boarding out, thus legally sanctioned, applies only to the reception of patients by relatives, to whom an allowance is guaranteed by the Government.

This necessarily limits the area within which the experiment might be tried, which is further limited by the fact cited by Dr. Manning, that so many of the patients are, as respects the Colony, absolutely friendless. He tells us that, in the middle of last year, an enquiry into this circumstance elicited the remarkable fact that, out of 2,036 insane persons then under care, 1,038, or more than half, were absolutely without friends or relatives; and he is, therefore, naturally not surprised that this system of boarding out has not effected any considerable reduction of the asylum population. The experiment of housing the insane in wooden buildings of cheap character, Dr. Manning tells us has been tried to a greater extent in this Colony than in any other part of the world, and he does not doubt its cheapness and suitability for certain classes of patients. "But such buildings," he says, "present special danger from liability to fire; they need frequent painting and repair; and the experiment has not yet been made long enough to enable a correct idea to be formed as to its ultimate economy. Moreover, the experiment has now been carried to the fullest extent compatible with the safety and comfort of the patients, and experience has clearly shown that there are large classes, especially the more noisy, dangerous, and demonstrative, and all those in the acute stages of the malady, who cannot safely be placed in buildings of this kind."

The fact would seem to be that the Government of New South Wales is no more successful in its search after an economical mode of caring for the insane than are the various local authorities in this country, and it would, therefore, be well for it to recognize the inevitable nature of the burden, and seek to meet it with an adequate provision. It can be no true economy to reduce the chances of recovery, and of a return to profitable industry, to a minimum.

The number of insane persons under official cognizance on the 31st December, 1879, in the various hospitals throughout the Colony, was 2,011, and these had increased on December 21st, 1880, to 2,099, showing an increase of 88, or seven above the annual increase of the last decennial period.

The proportion of insane to population was at the latter date 1 in every 367. The percentage of recoveries to admissions for the year 1880 was 41·7, and that of deaths to the average numbers resident, 7·1.

Of the alleged or apparent causes of insanity in the patients admitted into the Gladesville Hospital during the last 11 years, 16·7 per cent. came under the head of moral, and 56·3 of physical, while in 27 per cent. the causes were unascertained.

The average cost of each patient per week in 1880 is stated to have been 11s. 9d.

The report contains an interesting series of tables, showing the causes of insanity and deaths; the length of residence; the ages on admission and on first attack, and other similar particulars; and in an appendix are given in detail the results of the visitation of the various institutions for the cure of the insane in the Colony, and the reports of their superintendents, from which it would appear that Dr. Manning and the other lunacy officials of the Colony are doing a large amount of useful and enlightened work under specially trying and discouraging circumstances.

PART IV.—NOTES AND NEWS.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

The Quarterly Meeting of the Association was held at Bethlem Hospital on Wednesday evening, the 2nd November, at 8.30 p.m. Present—Dr. D. Hack Tuke, President of the Association, in the Chair; Drs. Bower, Gardner, Godwin, E. T. Hall, H. Hicks, Manley, Mickle, A. Newington, Paddison, Paul, Rayner, Savage, J. W. Scott, F. Schofield, Stewart, C. M. Tuke, F. H. Ward, Weatherly, Willett, W. Wood, W. E. R. Wood, Woollett, F. J. Wright, &c.

The following gentlemen were elected ordinary members of the Association, viz. :—

Arthur D. O'Connell Finegan, L.K.Q.C.P. Ire., Assistant Medical Officer, Northumberland County Asylum, Morpeth.

Richard F. Owen, L.K.Q.C.P. Ire., Medical Superintendent of Tue Brook Villa, Liverpool.

T. Steele Sheldon, M.B. Lond., Assistant Medical Officer, Somerset and Bath Asylum, Wells.

R. Atkinson, B.A., Cantab., F.R.C.S., Assistant Medical Officer, Powick, near Worcester.

Dr. SAVAGE, in exhibiting two pathological specimens, observed that it seemed a pity that more pathological specimens were not shown at the meetings of the Association. From the Commissioners' reports it appeared that hundreds of post-mortem examinations were made yearly at the asylums, and yet the results contributed to medical science were small in the extreme. The first case he exhibited was one of ulceration of the large intestine. A man with highly neurotic inheritance served in India as a soldier, returned invalided, was discharged, and was admitted into Bethlem suffering from melancholia. He was refusing food for no definite reason. He had the idea that he could not digest food; that the food was no good to him—it would not assimilate. That went on for two or three years, and the man slowly lost strength and died. In the end he died of many causes. He had tubercle of the lung, with cavities. The cavities were not in the usual position, but in posterior part of middle lobes. When we examined the intestines we found ulcerations, for the most part in or about the colon, and near the ileo-cæcal valve. Cases somewhat similar to these had been described in the St. Bartholomew's Hospital reports by Dr. Clave Shaw. He (Dr. Savage) had a very definite idea as to the relations of our gastric and digestive integrity and our mental integrity. The only importance he attached to this case was that it was the first he had noticed since he read Dr. Shaw's account of melancholia associated with ulceration about the large intestine. With certain forms of bodily disease there were certain types of mental disease. It was noticed fifteen years ago that with mitral disease of the heart there was sometimes melancholia. As regards the second case, he had merely put some sections of a spinal cord before them in spirit to show that some things which were worth seeing in nervous tissue were almost as well seen by the naked eye as by the microscope. In this case there was sclerosis, lateral chiefly. There was also degeneration of the median anterior column. There was chiefly degeneration of the lateral columns, of the anterior or Türck's columns, and of the posterior columns; and there had been that kind of paralysis associated with wasting of the muscles and increase of the patella reflex. The patient was admitted into Bethlem with all these symptoms, and was diagnosed as a case that ought to have been sclerosis of the lateral column and also of the columns of Türck. This case is of most interest as an example of the important physiological experiments which disease is ever performing. The unity and continuity of the nervous system is shown more clearly than in the coarse experiment to attempt to divide one column and then another by a knife; that when one saw a patient suffering from paraplegia, increasing, and then developing mental symptoms, it merely showed the continuity between the higher nervous centres and the lower. Although there was nothing rare or special in all this in general hospitals, he believed that it had not been commonly described as associated with mental symptoms, and he had thought it worth while to begin to bring specimens there, hoping that at future meetings others would contribute their share.

The PRESIDENT said that he hoped that Dr. Savage's wish would be fulfilled, and that this would be the commencement of a series of similar contributions. In times past this special department of investigation had been neglected, and he hoped that in future much more would be done in that way. If no paper were read, pathological specimens might be exhibited by card, as at the Pathological Society. Both the cases were of great interest. He would like to know from Dr. Savage whether, in regard to the first case, he had any explanation to offer why affection of the mitral valve was more associated with melancholia than affections of the aortic valves, and why, seeing the enormous number of cases of mitral disease without melancholia, that disease should in certain

cases be associated with melancholia? Of course, the question would arise over and over again in connection with the co-existence of certain mental diseases with other maladies, notably with syphilis. As to the second case, he would only add that he had seen the patient, and as regards the patellar and other reflexes, the irritability was very marked indeed. He hoped remarks would be made on these cases.

Dr. MICKLE observed that he had seen a great deal of ulceration in the large intestine, especially in the case of soldiers who returned from India. They suffered a great deal from dysentery, and got insane. In such cases the patients had come to this country with the whole of the large intestine in a state of complete ulceration. As the result of that, the patients had in many cases died, and post-mortems had shown that in some cases there was not a shred of the mucous membrane left; no trace of the original smooth surface—simply a huge ulcerated surface. It did not, however, at all necessarily follow that the form of mental disease in those cases should be melancholia. Many of them broke down in some state of dementia, a great many, of course, in melancholia, but not a few passed into a state of chronic mania. The second case was a very interesting one. Was the condition of the posterior column a primary or a secondary one? The morbid change would have the appearance of a secondary change. *melan*

Dr. GARDNER said that he had frequently seen in his own practice cases of gastro-intestinal catarrh with first nervous irritability of the heart, finally assuming mitral disorder. It was well known to every one that the condition of the heart and circulation had very much to do with cases of nervous affection. With reference to gastro-intestinal catarrh, his feeling was, from practical experience, that those cases were more or less dependent upon inefficient action of the kidneys—upon urinary poisoning, for instance. His own experience had been very little in these cases, but he had found where cases of gastro-intestinal catarrh could be distinctly traced that a small dose of the acetate of potash and tincture of iron was invaluable, combined frequently with digitalis. In connection with these cases there was very frequently an unusual secretion of saliva in the month, which was at times disagreeable; and he had found that the treatment suggested would, if continued, remove a melancholy condition, and benefit the patient generally.

Dr. SAVAGE, in reply, said that as to the connection of the cardiac disease in the first case with melancholia, he could not attempt to explain it. With reference to Dr. Mickle's remark as to secondary degeneration of the posterior column, he was scarcely in a position to acknowledge such a secondary degeneration in the posterior columns as possible. He thought—speaking without his text—that degeneration of the posterior columns, as generally spoken of—namely, not the columns of Goll, but the columns associated with the posterior nerves—were to be regarded as the degeneration of locomotor ataxy. He would not speak too definitely. As to the columns of Goll, in looking at the French and German literature it appeared to him that those columns were rather useless columns. There might be a symptom of rabies without those columns being affected at all, or those columns might be affected as secondary. Looking at the age of the woman (36), he did not think that it was a case of secondary lateral degeneration. As to the treatment, the therapeutics were the weak point of the age; and he was sorry to say that although several remedies were tried, they did not succeed in doing the man any good. Certainly the next case which came before him he should adopt a treatment *secundum artem*.

The discussion on Dr. Campbell's paper on "Complaints by Insane Patients" (see Original Articles, p. 342), which was adjourned from the last annual meeting, was resumed.

The PRESIDENT, after reading a letter from Dr. Campbell stating his regret that he was unable to attend the meeting, said that he hoped Dr. Campbell's absence would not make any difference in the discussion of his important and

practical paper. Dr. Campbell, in concluding his paper, had said, "The chief value, if value there be, in this communication, will be in the discussion which I trust it will give rise to." He would read Dr. Campbell's summary of his remarks (as printed at page 351 of the Journal), in order that the conclusions at which he had arrived might be clearly before the meeting.

Dr. MANLEY referred to a method of self-disfigurement which he had frequently seen done, which was to suck the arm, whereby the appearance of a bruise was formed. This was done frequently by hysterical women. There was another class of complaints by patients which frequently seemed to have a great deal of reason, inasmuch as they were made, not on behalf of the patient making the complaint, but on behalf of some other patient supposed to be suffering under the ill-usage of nurses. At his own asylum the arrangement of the wards sometimes necessitated the transfer of certain suicidal and epileptic cases from a day-room to a dormitory at some distance from it, the patient sometimes being taken between two attendants. It would happen frequently that an epileptic would become very troublesome, and a certain amount of force might be necessary to convey the patient from one place to the other. This being the case, other patients who had been tolerably well educated and pretty reasonable would make complaint that greater force was used than was necessary. Some of these complaints he had investigated, and found perfectly groundless. One was obliged to take notice of those things. Some of the complainants were so specious: they would say, "I saw so-and-so ill-treated. You go and look at her now." As to bruises, he always made a point of immediately investigating the case and recording it in his case-book, also making a statement of it in the medical journal.

Dr. RAYNER said that in cases where the epileptic condition had ceased to exist, and had been replaced by periodical attacks of irritability of temper, he had known patients bring all sorts of charges. Generally, the fact was that they had treasured up something which had been said to them, which they at the time had treated as a joke, but which they subsequently brought out as a very grave matter.

Dr. WEATHERLY said he had a case of a young lady suffering from recurrent mania. During her last interval of sanity she made various complaints against the medical man and the attendants. Strange to say, the peculiarity of her complaints was that her statement would be fairly true up to a certain point; but directly she relapsed, her complaints became grossly exaggerated. In one case, she complained that the medical man had examined her in a room by himself. Now she made out, and she told her mother, that he not only stripped her stark naked, but also maltreated her in other ways. He had had the greatest difficulty in persuading her parents that her statements were merely delusions.

Dr. SAVAGE said that one thing which had struck him in Dr. Campbell's paper was the statement that they were not to take the evidence of an insane person as of so much value as that of a sane person. He did not know how they were to weigh this. Evidence was evidence, and how were they to draw the line? It was certainly a very difficult matter, especially with hysterical cases, who exaggerated everything, and those cases were utterly untrustworthy. Only on the previous Saturday he was playing rackets, and there was a man bringing up the balls who had frequently said that he had been ill-treated. This man came up, and said, "They have been at it again;" while all the time, the man had never been away from the racket court. It seemed to him that if a bruise were found it ought to be explained by the attendants. If they could not give a reasonable explanation of it, let them be punished. Statements made by patients should be received with great caution. If a bruise were found, it should be explained; but they should be very doubtful about its not having been self-inflicted.

Dr. BOWER observed that at his institution they had a rule that all bruises

found, and not reported by the attendant in charge, were laid to the charge of the attendant, who was dismissed.

Dr. STEWART said that in one of the county asylums a rule was adopted that whenever a charge of any kind was brought, there was a sort of court constituted in the Medical Superintendent's office, which seemed very much to satisfy the patients. All the evidence was taken down, and in a very methodical way recorded. To the views of many of those patients in public asylums this proceeding gave an air, at all events, of great attention being paid to their complaints, which it was only right and proper it should be, and it also showed the attendants that the evidence would be taken particular note of, in such a way that it could be afterwards referred to, if there should be anything corroborative which should lead the Medical Superintendent to think that there was some one to blame. The attendants were very much to be pitied, living, as they did, constantly among the patients. It should also be borne in mind that attendants, as a rule, came from a class that had somewhat more sympathy with the patients they had to deal with than they were generally given credit for. The pauper insane, as a rule, were practically of the same class that the attendants themselves came from, and there was sympathy between them. The attendants in large public asylums had too many cases to look after, and so injuries took place which they were held responsible for, and which they ought not to be held responsible for. A long ward would be, perhaps, under the care of two attendants. A scuffle might take place, and it might be quite impossible for them to give proper evidence; but the attendant would be held responsible, and, perhaps, punished. In some cases, if the Committees of Visitors would appoint more attendants, there would be fewer complaints unaccounted for.

The PRESIDENT said he thought that Dr. Campbell would be gratified when he read the discussion which his paper had elicited. One practical conclusion to be drawn from the extreme difficulty of taking the evidence of lunatics was, that Medical Superintendents and committees ought to be most careful in the kind of attendants they employed. It showed the extreme importance of having reliable attendants. Dr. Savage had said it was a question of evidence or no evidence, and yet it seemed to him (the President) that it must depend, after all, upon each individual case. They could not lay down any abstract rule, and in each case they would have to consider the particular character of the patient's delusion, and his general mental condition before they could give an opinion as to whether his evidence was reliable. In some cases a Medical Superintendent would be of opinion that a patient's evidence was reliable, although he had many delusions; and yet in another case of delusion, he would give, and rightly give, just the opposite opinion. Dr. Campbell's paper only referred to the complaints of patients in regard to injuries; but there was another aspect which was very important, and that was the complaints of patients in regard to their property. It had happened to him, in one instance at least, to see the extreme annoyance occasioned by persons—from very kindly motives—taking charge of the property of a lunatic with small means. In one case, the lunatic got hold of an attorney, and persuaded him that his friend was making use of his little property, and the friend was caused great annoyance; and he (the President) had no small difficulty in inducing the attorney to withdraw the charge which he was going to bring, simply upon the accusation of a lunatic, against his best friend.

Dr. WEATHERLY read a Paper on "The Insane in Private Dwellings."

Dr. WM. WOOD said that there were some important considerations overlooked by Dr. Weatherly. The great defect of all the arguments in favour of treatment in private houses was this—that they mis-stated the case, to begin with, by asserting that insane persons in asylums were a very wretched and miserable lot of people. He joined issue there, and must say distinctly that it was his belief—taking a certain number of patients in an asylum and an

equal number of sane people outside of asylums—that there was, to a great extent, less misery amongst the patients in an asylum than there was among an equal number of persons in the world; and why? Persons in an asylum were at once relieved from all the cares of life—the anxieties, the worries, and the ill-temperors and vexations which constituted the miseries of life. Only a few days ago he had a patient at St. Luke's so well that he thought him fit for discharge. He had suffered a severe injury some years previously which crippled him, and he had great difficulty in getting about. He had been living for some years in an almshouse, where, for his position in life, he was, perhaps, as comfortable as he could be. At first he was rather pleased with the idea of going, and when the time came, they all expected him to take leave very cheerfully; but the very contrary was the case. He began to realise the fact that he had been very happy in St. Luke's, and he did not care to go. If the patient had not been already reported as "discharged recovered," he would have been inclined to reconsider the case. That was only one of a number of illustrations he could offer. Then, with regard to the association of the patients, which was said to be so detrimental, he believed that was the most essential and most valuable part of their treatment (hear, hear). He was strongly impressed some years ago in reading a sermon of Dr. Chalmers, the text being "The expulsive power of a new affection." He could cite cases which had recovered simply from having been exposed to the disadvantages of asylum life. At Roehampton a lady had been in some of the first asylums of the kingdom. She was a perfect lady, and, when well, a very charming person, but, when ill, the greatest nuisance that could be. It so happened that at that time he had a lady in the house who was even more noisy than the new case, but was, like her, an accomplished gentlewoman, who, when herself, was most agreeable society. The lady just admitted was literally appalled by the noise and annoyance with which she was brought into contact by meeting with the other patient, and she complained continually of it. Of course, he argued that one patient had as much right to make a noise as the other, and suggested to the new-comer that she should set the other lady a good example. The result was, that the lady who had been for years the difficulty of his and other asylums got well, and had remained well for three or four years, and he attributed her recovery solely to the fact that she was brought into contact with a patient who was a greater annoyance than herself. It came home to her, in a way in which no reasoning could accomplish, that there was something intensely absurd in an educated woman making such a noise. That was only one of many illustrations he could give. He should think that the author of the paper which had been read was not connected with asylums, because gentlemen connected with asylums would confirm what he said—that the important part of the treatment of patients was the opportunity of diverting their mind by starting a new train of thoughts. From this consideration there arose a great objection to treatment in private houses. Of course there were a certain number of cases very properly treated in private houses, but the circumstances of a very large proportion of patients were such that it was simply impossible. In some cases they would be intolerable to their families. Many of them had not the means of obtaining the comforts which they would receive in an institution. As regarded the attention paid to particular cases, recent cases always would at once attract the attention of those under whose care they were placed; and the special features of the patients' cases having been once acquired, they would not be forgotten. When he himself was in that very house, years ago, he thought he might say that he knew personally all the circumstances of every case, and he thought he could have been cross-examined upon the particulars and details of every individual in the house—about 450. He did not see what was to prevent a man making himself perfectly familiar with the history and symptoms of every patient under his care, and when that was once acquired it was not forgotten. He thought that a great disservice was done to

the insane by encouraging them to believe that they were ill-treated, and that it was a cruel thing to shut them up. There was in an asylum, practically, no more shutting up than in a private house. Sometimes the patient in an asylum got more liberty than in a private house. Human nature was such that it was disposed to accept the inevitable. Great disservice was also done by encouraging patients to believe that there was a prejudice against them, and that the world would look askance at them. Many were very intelligent, and could understand, and if they could be brought to believe that they were not regarded as so different from other people, but only as suffering for a while from temporary ailments—if the notion that it was necessary to “lock them up” could be done away with, and they could be simply led to understand that after all the asylum was only a boarding-house, and that it did afford them the advantage of giving them greater comfort than in a private house, things would be different. There was one gentleman under his care who regularly every day dined at his club, kept his own carriage, &c. There was, of course, always an attendant with him, but there was no difficulty in giving him all the enjoyment he could receive at his own house. The great object, of course, was to make patients happy, and he contended that that could be done just as well in an asylum as in a private house.

Dr. RAYNER, referring to the evidence of Dr. Lockhart Robertson that there were 64 per cent. of Chancery patients in private houses, but only 34 per cent. of other private lunatics thus provided for, suggested that the difference might be due to the fact that a considerable percentage of the Chancery patients were, presumably, very much better off than those persons who were in private asylums, as a rule, their larger means rendering them better able to command the advantages of private treatment, so that the comparison of the two classes was not fair.

Dr. BOWER said that he did not wish to depreciate the value of treatment in private houses. He was sure they had all seen cases benefited in private houses where they were not benefited in asylums. It was not every day that they could get such an enthusiastic medical man as Dr. Weatherley to take what had been described as nuisances into his family. The question resolved itself into a matter of money. If patients would pay £300 or £400 a year, then the private system might work; but in many large asylums the payments were very much less than that, and they could not be expected to get those comforts. Dr. Wood referred to the study of individual cases. That was a very easy matter; at all events, with a hundred cases. The association, as Dr. Wood mentioned, was not necessarily harmful. He had just then in his mind two cases—one a melancholic case, who could not be got to do anything, but on going to the asylum he saw a lot of dements, and he said, “Doctor, is there any chance of my getting like these men?” “Yes,” was the reply, “if you do not take care and get well;” and he was now doing everything he could towards his own recovery. In the other case, he (Dr. Bower) had a patient who was very noisy and dangerous. He admitted another patient similar to the first, and as soon as one began to be noisy the other went and, so to speak, “sat upon her”—first the one and then the other—until soon they got perfectly quiet. At his institution they had one part which was designated the physician’s own private house, but patients residing there, though there were ostensibly no locks and keys, found that they got more liberty in the main building, where they had more range. He thought that that part of Dr. Weatherley’s paper which referred to supervision and inspection was very important.

Owing to the lateness of the hour, the discussion of Dr. Weatherley’s paper was adjourned to the next quarterly meeting, and a paper from Dr. Ringrose Atkins was taken as read. (See Clinical Notes and Cases.)

THE NOBLE FOREHEAD.

A paper on the "Noble Forehead" was read before the Casual Club, London, on the 1st of December, by Dr. Crochley Clapham.

The author, after dwelling upon the generally prevalent belief in the intellectual character of the noble forehead, proceeded to examine the grounds upon which this belief was founded.

He showed, by a series of photographs of the same individual taken under conditions (1) in which the hair was growing low down on the forehead, and (2) in which the hair was removed from the forehead, that in the one case the appearance was noble, and in the other ordinary. He further pointed out that the standpoint from which a forehead is viewed is of great moment in forming a judgment as to its capaciousness, and recommended Lavater's method of viewing from above.

Supposing an unusually large forehead present, he denied that it necessarily represented correspondingly large frontal lobes in the subjacent brain, and instanced the occurrence of large frontal sinuses as illustrating this. Further he contended that there was no proof that the frontal lobes were the seat of intelligence, and gave the following reasons for rather crediting the occipital lobes with that function :—

(1.) The occipital lobes occur only in the primates, being absent even in the lowest of the monkeys, whereas the frontal lobes are present in all the mammalia.

(2.) The occipital lobes, where present, are the latest developed, whereas convolutions first make their appearance in the brain of the human embryo in the frontal lobes.

(3.) The occipital lobes are not occupied, as are the frontal lobes, by extensive motor areas; indeed, they have no motor cells whatever in their cortical substance.

(4.) The occipital lobes are small and ill-developed in idiots (a straight back to the head being a common feature of idiocy), whilst the frontal lobes are unusually large, relatively speaking.

(5.) Wasting of the occipital lobes is always accompanied by dementia; not so wasting of the frontal lobes.

In support of his fourth proposition, the author quoted from some tables in his possession which he had drawn from careful weighings, made by him and others in the West Riding Asylum, of over 400 insane brains. Idiots' brains had frontal lobes weighing 37·16 per cent. of the weight of the whole encephalon, whilst all male cases only showed a percentage of 36·05, and all cases, male and female, a percentage of only 35·99. In fact, with the single exception of cases of simple mania, where the percentage of the frontals to the encephalon was 37·31, idiocy ranked highest in the scale.

As regards measurements of the head, the author quoted from a paper of his in the sixth vol. of the West Riding Asylum Med. Reports, to show that in a number of sane and insane individuals of the same station in life, whose heads were measured, the frontal portion of the circumference was 52·5 per cent. of the whole circumference in the insane, whereas it was only 52·1 per cent. in the sane.

For the benevolent character of the noble forehead, the author thought that more might be said, and he gave a table in which the head measurements of 84 respectable members of society were compared with those of 500 criminals, taken by Dr. Henry Clarke in the West Riding Prison. The comparison showed that the respectable members of society had a frontal percentage of 52·1, whilst the criminals had a frontal percentage of 48·6 only. The author, after pointing out how careful we must be in drawing conclusions from such com-

parisons, went on to illustrate by diagrams the great want of correspondence which existed between the shape of the head and the shape of the brain, and finished up his paper with an attack on the so-called science of Phrenology, and the modes of procedure adopted by its professors.

An interesting debate followed, in which Mr. Kingsford, Dr. Selfe Bennett, Mr. Boyes, Drs. Hack Tuke, Haggard, Savage, Hughes Bennett, &c., took part.

SHOULD THE COST OF MAINTENANCE OF PAUPER ASYLUMS BE BORNE BY THE STATE OR BY LOCAL TAXATION?

We observe that the following resolution, proposed by Mr. Pell and seconded by Mr. Ellis, was adopted at a meeting of the Cambridgeshire and Isle of Ely Chamber of Agriculture, Nov. 12, 1881:—

“That the charges paid out of the local rates for the support of pauper lunatic asylums be defrayed from Imperial funds.”

It is proposed to hold a County Meeting on this and kindred questions.

We believe that the County Magistrates of Cambridgeshire and the Isle of Ely have both passed formal resolutions at their respective sessions, declaring it desirable that the Government should take up the asylums as they have already done the cost of the police. In South Leicestershire they have pursued the same course.

The correspondent of the “Derbyshire Times” of Nov. 5, observes, when speaking of this action, “There can be no doubt that this is a very important resolution, and one which will probably extend to and be discussed in other counties, especially as the Government last Session promised to take up and deal with the subject of Lunacy and Lunatic Asylums. Considering present circumstances, and the prospects of County Boards, which mean chiefly *Guardians*, having the management of Pauper Asylums, there is every disposition to believe that the balance of advantage would be decidedly in favour of the Cambridge resolution, although State control might not be an unmixed blessing. It will, however, be an evil day for the Insane Poor when their interests are handed over to ‘Guardians,’ who would probably form the largest proportion of Pauper Lunatic Asylum Committees. Far better to exclude Asylums altogether from the operation of any County Boards Bill rather than take a retrograde step by placing Pauper Asylums under the control of County Boards and Guardians. Let these Institutions be under State Control, under the Home Secretary, like the Prisons, or under the Local Government Board, which has the charge of Paupers. The advantages of State Control are obvious. There would be greater concentration, *e.g.*, one Asylum instead of two, as proposed in Derbyshire, less loss and distribution of energy and material, and more facility of administration, with, in all probability, less cost in management. The resources of Pauper Asylums would be made more largely available for recent, urgent, and violent cases; these institutions would be utilised to a greater extent; and the Idiots and Imbeciles, instead of being scattered over various Workhouses (as in Derbyshire), might be concentrated in one Intermediate Asylum, or disused Workhouse, set apart for the purpose. This was pointed out by Mr. Pell, M.P., the other day at the Poor Law Conference at Derby. The feeling of that meeting was in favour of concentration, Mr. Pell’s motion being passed unanimously.

“I am not to be understood as objecting to, or calling in question, the management of County Justices of Pauper Asylums. On the contrary, I believe that the poor insane will never be better or more humanely and liberally treated than under the present system. But as it is evident that, in response

to popular clamour, some change appears to be inevitable and fast approaching, I take it that State control would be the next best arrangement to the present system, and certainly far preferable to control by County Boards and Guardians, in the proportion contemplated. Another, and perhaps the chief advantage of State control would be *one* controlling authority instead of several (often conflicting authorities) as at present. It is most reasonable that Pauper Lunacy at least should be an Imperial question, a National charge. Pauper Lunatic Asylums under State control would mean the removal of existing anomalies and difficulties. This is the question of the immediate future."

The subject, while well worthy of discussion, is not to be hastily decided upon. The money paid out by the "Imperial Exchequer" must, after all, come out of the pockets of the ratepayers. It is also a grave question whether local taxation, combined with local management and control, are not the best checks on extravagance, and the best means of keeping up local interest. However, the question is one on which much may be said on both sides, and ought to be approached in a fair spirit, and altogether apart from the question of agricultural distress and its relief. Superintendents of asylums have nothing to do with this, as such.

FATAL OCCURRENCE AT THE FULBOURN ASYLUM.

[We take from the "Cambridge Independent Press and University Herald," Nov. 26, 1881, all that is important in the evidence given at the Coroner's inquest. No blame whatever attaches to the officers of the Asylum. That such accidents are not of much more frequent occurrence is one of the extraordinary features of asylum life, and redounds to the credit of those in charge. It will be seen that the cause for so sudden a death from a single blow was the rupture of a blood-vessel, and consequent effusion of blood over the base of the brain and into the lateral ventricles, the blood flowing into the fourth ventricle and downwards, compressing the medulla oblongata.—Eds. J. M. S.]

On Sunday morning last an unfortunate occurrence took place at the Cambridgeshire Lunatic Asylum, by which an inmate, named George Taylor, met with a sudden death at the hands of another inmate, named Isaac Warwick. Below will be found the details of the transaction as stated by the authorities and attendants of the Institution, but one circumstance, which there is every reason to believe occurred, did not transpire, viz., the provocation on the part of the deceased which several of the inmates could have sworn to, but that it was not deemed advisable to administer the oath to lunatics. It is said that Taylor struck Warwick a violent blow on the jaw, either on the way from breakfast or in the ward, but this was not seen by any of the attendants.

An inquest was held at the Asylum Nov. 21.

George Mackenzie Bacon, M.D., deposed: I am the medical superintendent of this asylum. I produce the original order on which George Taylor was admitted to this asylum on the 15th of February in this year. He was 46 years old, and had not previously been here. He was described as neither suicidal or dangerous to others. Taylor has been since he has been here in a depressed condition of mind, and had delusions, thinking that the Devil was after him, and he would be burned alive. He exhibited no violence or dangerous tendencies here. I also produce the certificate of admission of Isaac Warwick, who is also at present in the asylum: he was admitted on the 12th of May, 1877, being then 21 years of age: he is described as being dangerous to others. I regarded Warwick as a congenital imbecile, of bad disposition, unable to control himself, and I have found him sly and deceitful, troublesome and mischievous; he also frequently had epileptic fits, and was irritable and excitable. He has more than once assaulted the attendants as well as other patients: for instance, he kicked one of the attendants on the nose, and disfigured him for several weeks, this year. But, as a rule, he was generally tolerably quiet, and was often employed usefully on the land and at simple work. It was not a case that I regarded as necessary for special precautions. Taylor was a slight man, but not a weak one. About half-past eight yesterday morning I was called to see the deceased by Mr. Boyd, the assistant medical officer; when I reached the ward I found the deceased lying on a bed in a single room: he was quite dead.

Dr. Bacon (by the Foreman): I think a man who is insane is not accountable for his acts. I think Warwick is a person who is not fit to be at large because of his violent tendencies, and that is the reason he was sent here from the Chesterton Workhouse.

By the Coroner: If he had been a person fit to be at large he would not have been detained in the asylum. He was not subject to delusions like the deceased; his is a case of chronic epilepsy.

John Wivell deposed: I am the second attendant of No. 2 ward on the male side of Fulbourn Asylum. Yesterday morning I was in charge of the ward at twenty minutes after eight o'clock; had been in charge since half-past six in the morning. I had seen Warwick and he was orderly as usual till this affair took place, and so was Taylor. Breakfast was at eight o'clock in the dining-room; I remained in the ward whilst they went to breakfast with the patients who did not go down. The deceased and Warwick did go. About twenty minutes past eight the patients returned to the ward; I was in the bathroom attached to and opening into the ward, bathing a patient, and Attendant Ayres called me to know if all the things were on the trolley that had to go back to the kitchen, and as I came outside the door to see, I saw George Taylor standing with his face towards me just outside the door, and Isaac Warwick came slyly up behind him and knocked him on the side of the head with his fist. George Taylor fell insensible to the ground. I at once went to Taylor, who I saw was very much hurt; he seemed as if he was in a fit; Ayres was there, and I left Taylor in charge of him, and went immediately for the doctor.

Robert John Boyd deposed: I am a duly qualified medical man, and the assistant medical officer at this asylum. I was called yesterday morning about half-past eight to see deceased at No. 2 ward on the male side. I found him lying on his back with his shirt collar and tie undone. I examined his pulse and heart, and found that the circulation and the action of the heart had stopped. He was quite dead. I have known Warwick about a year. I have seen him violent at times, and abusive. On one occasion a fit came on suddenly—on the occasion that he kicked Wivell.

George Edward Wherry deposed: I have made a post-mortem examination of the body of the deceased. I found the body of an apparently healthy man, with no evidence of external injury. Further examination revealed some adhesions of the pleura and pericardium of old date. The lungs were congested. The kidneys and liver were healthy. The cause of death was found in the brain. A large blood clot which filled the fourth ventricle surrounded the medulla and pons and extended nearly all over the base of the brain. There was blood in the anterior fissure and in the fissure of the Sylvius, also on the surface of the hemisphere. The cause of death was the pressure of blood on the nervous centres. Such a death would be very sudden. Such a blow as has been described would be a probable cause. The vessels of the brain were thin, and would readily give way.

The Coroner informed the jury that the first question they had to consider was the cause of the death of the deceased; secondly, whether any person had done anything to produce his death which would render them responsible to the law; and thirdly, what was the state of mind of the person at the time that he committed this act. The facts left no possible doubt in their minds that Taylor died from the effects of the blow inflicted by Warwick, and he thought the evidence was equally conclusive as to Warwick's state of mind being such at the time when he committed this act as rendered him irresponsible. He said that, so far as he could see, there was no blame attributable to any of the attendants or the authorities for this unfortunate circumstance.

One of the jurymen asked if Warwick could not be called, in order that they might ask him how he came to strike the blow.

The Coroner asked Dr. Bacon whether, if Warwick were called, he could appreciate the caution which it would be his duty to give him, that he was not obliged to answer any questions which might tend to criminate himself.

Dr. Bacon replied in the negative.

The Coroner said he could not allow him to be called.

The jury at once returned a verdict "That the deceased died from the result of a blow administered by Isaac Warwick, who was in an unsound state of mind, and not responsible for his actions."

LEGAL INTELLIGENCE

IMPORTANT WILL CASE.—DISPUTED TESTAMENTARY CAPACITY.

PROBATE, DIVORCE, AND ADMIRALTY DIVISION.

(Before the Right Hon. the PRESIDENT and a Special Jury, on May the 10th, and six following days.)

Mr. Henry Matthews, Q.C., Mr. Inderwick, Q.C., and Mr. Bargrave Deane, appeared for the plaintiffs; Sir John Holker, Q.C., Mr. Middleton, and Mr. Page, were for the defendants, and the intervener, Charles Rudolph Thompson; Dr. Swabey appeared for Mrs. Garvington, another intervener.

The plaintiffs propound the last will, dated August 1, 1880, of the Rev. Thomas Troughton, who died on September 16 of that year, at the age of 63, possessed of property, value £75,000. The defendants oppose this will on the ground that it had been obtained by undue influence of the plaintiff, the Rev. Charles Kilshaw Dean, and of a German female servant, named Huwig, who had lived with the testator.

By a previous will, dated 26 June, 1876, the bulk of the testator's property was left to the sons and daughters of a cousin of the deceased, and a legacy of £1,075 only to Dean, with whom testator had become acquainted in 1841.

Other wills were also made within a short period before the testator's death, in favour of different relatives, all of whom were interested in upsetting the will in favour of Dean.

Numerous witnesses were called on both sides, those in favour of Dean affirming that they had never witnessed any act of the testator which could point to unsoundness of mind. The most important witness on the side of the plaintiff was Dr. Brown, of Preston, who had visited the deceased not less than 38 times during the last three months of his life, and treated him for the consumption of which he died, and had never observed any mental aberration. It is, however, worthy of remark, that Dr. Brown was, on every occasion, kept waiting twenty minutes before he saw his patient, and also that he was only charged with the treatment of the bodily disorder of the testator, and not with any authority to enquire into his mental condition. He admitted his extreme irritability, and that he was very peculiar. Dr. Brown was dismissed suddenly without reason, and testator took an antipathy to him, trying to get a friend not to employ him. Shortly before this he had said that he was much neglected under Dr. Brown's treatment.

On the side of the plaintiffs, Mr. Oram, a schoolmaster, was called, whom the testator had, in the year 1855, attempted to murder with a razor, intending to commit suicide afterwards. It was clear that at the time of this attempt the testator was insane. Moreover, numerous acts of eccentricity, alterations of character, excitement, as testified by shouting and bad language, refusal of food, inability to conduct business matters, and extravagance in expenditure, were sworn to as indications of insanity, although no distinct delusions could be proved.

After a trial lasting seven days, Dr. Clouston and Mr. Page, of Carlisle, were examined as expert witnesses. Dr. Clouston said that an attempt at murder and suicide, without outward cause, unquestionably indicated insanity. He said that after a person has once been insane there is a greater liability to its recurrence, and especially in the course of any exhausting disease. He said that consumption had a special tendency to be associated with a certain form of mental disease, the chief symptoms of which were morbid irritability and suspicion, with unsociability and causeless aversions to relations and friends. He said that mental disease was in certain cases so subtle that it was most difficult to detect, as in a case when a patient of his concealed a delusion for twelve months, and in certain other cases it needed to be specially examined into by skilled and competent persons to be discovered. He said that if a man had once been insane before, had remained peculiar, hypochondriacal and irritable, if he had then become consumptive and weak in body, and his peculiarities had become much developed, so that he suspected and quarrelled with any old friends without any cause whatever, threw over relatives and treated them differently from what he had ever done in his whole life, often lost self-control so much as to scold, shout, and talk incoherently without cause, and could not bear the least contradiction; and if in this condition he took to making wills—making three in three weeks, altering the whole disposition of his property in each, depriving in one, a relation, to whom he had left the bulk of his property, because he had asked him to make an inventory of his furniture, and had finally left almost all his property to an old friend who was no relation at all—then, in his opinion, such a man was influenced by insane delusion in the final disposition of

his property, his testamentary capacity being interfered with by the morbid fancies of his brain in regard to his relatives to whom, in his more sound judgment and when well in body, four times before he had left his property by will. In cross-examination he admitted that it was entirely a matter of degree whether irritability and suspicion constituted insanity; that a man might be insane and recover perfectly; that a combined suicidal and homicidal attack might be of short duration, and might be perfectly recovered from; that the ideas he had expressed as to the special connection between consumption and insanity were his own, and though admitted now by many eminent men, were not universally accepted. He said that no doubt a medical man in attendance had the best chance of seeing a patient's mental state, but he might not be thinking of this aspect of his patient, and might not have all the facts before him on which to found a conclusion. Dr. Clouston's evidence was specially commended by the President for its clearness and fairness. Mr. Page concurred generally with Dr. Clouston in his evidence.

Dr. Sutherland had previously instructed the counsel for the defendants in the line they were to take medically, and Dr. Bucknill instructed counsel for the plaintiffs.

The President summed up the case to the jury, dwelling strongly on the facts that the medical men had stated that the insanity was not incurable—that suicidal mania was frequently due to sudden impulse, and that though a man might labour under it for a considerable period, he might at the same time be of sound mind; that the letters of the testator showed that he was a man of superior intellectual power down to a very recent period of his life, and that there were no real delusions on the part of the deceased. He also dwelt on the fact that he had never been treated by any one during his life as being insane.

The jury retired, and after deliberating for a few minutes, found a verdict for the plaintiffs on all the issues.

The Court pronounced for the will, costs to follow the event in the case of the defendants, but the intervener not to be condemned in costs.

Correspondence.

ILLUSIONARY AND FRAUDULENT ASPECTS OF SPIRITUALISM.

Second Letter from Mr. STUART C. CUMBERLAND.

To the Editors of the "JOURNAL OF MENTAL SCIENCE."

GENTLEMEN,—Dr. Edmunds demonstrated the fact before the Sub-Committee of the Dialectical Society formed to meet Mr. Home, that heavy though the table used by them was it could, with the slightest muscular exertion, be very readily oscillated. There is nothing, therefore, very extraordinary in several people standing round a table, thoroughly impressed with the idea that eventually it will rise, to unconsciously clutch the edge of it and lift it up themselves, imagining the whole of the time that they have had no hand in what, to their mind, is a positive instance of "spirit" or "psychic" power. With a confederate a medium may easily, without risk of detection, cause a good-sized table to be raised several feet from the ground. It may be, and is often done in this fashion:—Round the medium and his confederate's wrists are clasped flat fine steel bracelets, and sliding between the inside of each bracelet and the flesh is a long blade of steel or iron. All this is hid by the coat sleeves, and when the medium and his confederate take their places at the table *opposite* each other the secreted machinery is quite indiscernible.

All hands being placed on the table round which the company is seated, a sign from spirit-land is anxiously awaited. It speedily comes in the shape of certain vibrations, possibly caused by the unconscious physical action of the sitters, during which the medium and assistant contrive to let the steel blades slip underneath the rim of the table. Now is the time, and the medium declares that he feels the table making an upward movement: at this all rise with their hands still lying flat on the surface of the table, and with them of course rises the table so nicely balanced on the supporting steel blades. The contention of the spiritualists is that the table is drawn upwards by the invisible agency at work, and that the sitters simply follow it; they therefore only look above the table and never *beneath* it, when that article of furniture takes its aerial flight. Did they but look underneath, whether it was the sitters unconsciously lifting it or the medium deftly manipulating it in the manner described, the means would be apparent. But spiritualists seem utterly blind to trickery—conscious or unconscious.

Then we hear of heavy tables being raised and smashed to pieces on the ground by invisible power. But, I ask, what would be easier when the table is so raised to let it fall suddenly, and would not its *own weight* be sufficient to smash it after orthodox spiritualistic fashion?

When I see a table rise in the air without anyone touching it, and when the employment of wire, or some machinery of a similar character for raising it is out of the question, I shall be inclined to think there is something in such a manifestation beyond mere trickery and illusion.

TABLE-TURNING, which at one time was so important a feature of Spiritualism, has now almost entirely disappeared from the list of manifestations provided by the mediumistic fraternity for the especial delectation of the credulous believers in the "occult." It is not now as in Faraday's time, when, as he said, hundreds of tables were nightly turning in the metropolis; for I question if there can now be found one professional medium in London who gives table-turning séances. Professor Faraday did much to expose the delusion of the affair, and Dr. Carpenter has since considerably aided in exploding what at best was but a pitiable self-deception. How anyone could for an instant have imagined that the "spirits"—good or evil—had anything to do with the eccentric movements of tables, unconsciously or consciously manipulated by the operators themselves, passes all belief. Let a number of persons seat themselves round a table, and place their hands upon it with a preconceived idea that the table will turn, and for a certainty under the unconscious muscular action of the sitters, it will do so. The indicator invented by Professor Faraday conclusively proved the existence of this muscular action, which entirely accounted for table-turning manifestations. If, as the believers aver, they use neither consciously nor unconsciously any pressure upon the table during the turning manifestations, why doesn't a table turn by itself in their presence without any sort of contact with them?

By smearing oil upon the surface of the table, "turning manifestations" are at once stayed. The medium's hands have thus no grip on the table, which refuses to act, proving beyond all reasonable doubt that without the exertion of muscular action by the operator himself, "the spirits" decline to manifest their presence.

TABLE-TILTING is explained on the same hypothesis. A medium places his hands upon a table which, whilst influenced by "the spirits" answers questions put to it by tilting.

This tilting, if the medium be honest, is undoubtedly caused by the *unconscious muscular action* (whilst with a professional the action would be a conscious one of the operator) and the answers thus given reflect for a certainty his or her mental state. Dr. Carpenter, in the *Quarterly Review* for October, 1871, has exhaustively dealt with this particular phase of Spiritualism: and there is really little left for one to say upon the matter. One's personal experience

entirely goes towards corroborating the views advanced by this eminent physiologist, and is of itself convincing that the *Unconscious Muscular Action* theory was not one expressly invented by scientists opposed to Spiritualism for the occasion.

The following incident is expressly illustrative of this:—

Some time back I received a requisition to attend a *séance* where genuine manifestations were to be witnessed. I accepted the invitation, and only put in an appearance in company with a young friend at the appointed hour. The *séance*, which consisted of table-tipping manifestations, opened with prayer. But though we waited patiently for some time, no "spirits" manifested their presence. The patriarch of the circle explained that it was just possible the "spirits" were offended at my presence, I being such a determined foe of spiritualism; and that in inviting me without having first asked the consent of their angel guardians, they had taken upon themselves a grave responsibility. My reply was that I came as an honest investigator, willing to be convinced if the proof were forthcoming. But still no manifestations were produced, the table remaining perfectly stationary.

I then asked if there was any sceptical influence at work which prevented "the spirits" manifesting; and, just as I expected, under the action of the sitters' hands, the table tipped the answer *Yes* (three tips). I then asked if I were the sceptic, and once more the table tipped an answer in the affirmative.

In putting the next question whether there would be any manifestations or not, I knew I should get a convincing proof of the agency to which the movements of the table were really due. For, in glancing hastily at the faces of the sitters, after putting the question, I discovered that they were in no way agreed upon this point. The sitter on my left wore the determined look of "no manifestations," whilst the next to him had uncertainty written on his face, and the second from him seemed equally uncertain, whilst the one on my right seemed to convey the impression that there would be some manifestations; on the part of myself and friend we were perfectly passive agents. Under this conflicting mental state of the sitters, the table began to waver in a state of uncertainty, until those who were in favour of no manifestations got the upper hand, and, in consequence, the table tipped once, meaning *No*. "Then there will," I replied, "be no manifestations," and in an instant I held my thumb under the rim of the table. I saw the sitters exchange glances, and once more the table began to waver, finally under the predominating influence of those who were in favour of "the spirits" manifesting, it tipped out an answer negating the first. With my thumbs thus placed, I distinctly felt the sitters opposite to me push the table, causing it to tilt.

I there and then explained what I had done, and the sitters were unable to reply to what must have been absolutely convincing that they and they alone caused the table to move. I believe, so far as I was able to judge, that these persons were perfectly honest though self-deluded. For years they had been sitting at this table, unconsciously causing it to turn, fully believing that the action was due to "spirits." So convinced were they of the genuineness of the affair, that they had expressly invited me for the purpose of showing me that there were some manifestations due to spiritual agency.

In all instances of table-turning and table-talking which I have investigated, I have either found professional trickery or unconscious self-deception the instruments causing the manifestations. It is refreshing to learn that this view is rapidly becoming general, and that, in a very short time, very few indeed will be found to believe that the eccentricities of tables are caused other than by perfectly natural means.

TABLE-RAPPING was the first phase of spirit manifestation introduced in connection with Modern Spiritualism. We all, I presume, know how, in the spring of 1848, the light of the New Dispensation dawned at Hydesville, near Rochester County, N.Y.; and how from very small beginnings this most unequi-

vocally degrading of all Epidemic Delusions rapidly spread over the old world and the new, until it assumed its recent gigantic proportions. Two little girls named Margaret and Katherine Fox were the first mediums, and it was through their mediumship that spirit-rapping manifestations were originally heard. Both these mediums, who caused intense excitement throughout the United States, eventually settled in England. Katherine, in 1852, married Mr. Henry Jencken, barrister-at-law, a well-known spiritualist, whilst her sister Margaret was led to the altar by Dr. Kane, the Arctic explorer, and has been left his widow.

It was not, however, either of those gifted beings who familiarized us in England with table-rapping *séances*. Another famous medium, Mrs. Haydon, an American, first introduced professional Spiritualism into London in 1853, some two years before the arrival of the celebrated D. D. Home. Her *séances* were much frequented, and she seems to have thriven remarkably well upon the credulity of superstitious Britishers.

The *modus operandi* of one spirit-rapper is like that of another. The Foxes, the Marshalls, Home, Mrs. Haydon, and other famous mediums, undoubtedly produced their raps through the displacement of their joints.

Excellent raps may be produced by snapping the big toe, with the foot resting upon the floor, the wood acting as a sounding board. Another method is the elbow pressing against the table or wainscoting, to displace two of the knuckles, and as the tendons slide back into their sheaths, raps loud and distinct can readily be heard. The same effect may be obtained by half-dislocating the knee; whilst a very favourite method, with the mediumistic fraternity, is to displace the tendon of the *peroneus longus* muscle, in the sheath in which it slides behind the external *malleolus*, by which means some very formidable rapping sounds may be produced. Dr. Schiff, of Frankfort, once gave a demonstration of his powers of imitating the spirit-rappers in this way, and a few others whom I have witnessed, have produced similar effects.

All this, of course, requires a great deal of practice, and, like the Fox girls,* I have, for my own part, found that soaking the limbs in hot water greatly facilitates the production of raps. When the feet and hands are cold or chilled it is extremely difficult to produce any sound.

The chief merit of this nice little arrangement lies in the fact that the risk of discovery is infinitely small. A medium, generally a female, takes her seat at a table, her feet being hidden by her dress. "Are there any spirits present?" will probably be the first question put, and the spirits will signify their presence by rapping† three times upon the table. Now it is impossible, under these conditions, to have seen the medium click her toe or displace the *peroneus longus*, and the investigators, who are carefully watching every movement of the medium's body, are naturally inclined to believe that she takes no part in producing the raps.

I often hear very extraordinary information having been given to enquirers by spirits by means of raps. For instance, a sceptic, in every way unknown to the medium, visits a *séance*, and, on the alphabet being called for, commences to run his fingers down the letters, "the spirit" rapping when the letters, forming his name, have been reached. This serves to mystify him, and he is further puzzled when "the spirit" answers, as often correctly as not, questions put by him to it. But there is nothing very wonderful in all this; and I am in a position to offer a very ready explanation of this apparent marvel.

Keen women, like Mrs. Haydon and Mrs. Marshall, possessed of remarkably

* A Mrs. Culver, of Arcadia, a relative of the Fox girls, made a written confession in 1871, setting forth how these mediums produced spirit raps by the displacement of their joints.

† One rap means *No*; two raps, *Don't know*, or *Doubtful*; three raps, *Yes*; whilst five signify that the alphabet is called for.

quick perceptive faculties, divined their information from carefully watching the countenance of the sitter who was putting the question. If the sitter is at all emotional he will quite unconsciously, in nine times out of ten, betray, by facial expression, when the right letters have been reached; and, by the same means, guide the medium in her decisions as to whether the replies to the questions put should be in the negative or affirmative. Of course, with unemotional men, the medium is liable not only to make frequent mistakes, but to be altogether afield, provided he gives her, neither by expression nor sign, any clue to the information desired. One can easily lead a medium astray by purposely pausing at the wrong letters; at every pause you make—apparently unconsciously—the “dear spirit” will rap in the affirmative. You may thus get “the spirits” to spell out “Jones,” when the correct name should be “Robinson.” If you yourself don’t remember a name or date “the spirits” will exhibit the same indecision in their replies, showing that they are guided by the *outward* expression of correctness or incorrectness that you afford them. All this faint reading by mediums is undoubtedly very clever, but it is really very remarkable how difficult it is with some people, under the influence of expectant attention, to control their muscles so as to offer no clue as to what is going on in their minds. With such people, keen-sighted mediums, with their natural perceptive abilities sharpened by practice, have an easy task; but with less impressionable persons a greater difficulty is experienced, whilst, as I have pointed out, nothing but failure results from those possessing a stoical temperament.

I have already stated how difficult it is to tell where sound really comes from. When Home was sitting with the Committee of the Dialectical Society, it will be remembered that, beyond a few puny raps and slight movements of the table, no manifestations of any importance were produced. Indeed, the only interesting part of the proceedings was the diversity of opinion, which existed at the time amongst the members of the Committee, as to the direction from which the raps really came.

Mr. Charles Bradlaugh and Mr. Dyte were thoroughly convinced that the raps came from the leg of the table, whilst Lord Lindsay (the Earl of Crawford), and other friends of the medium, were equally positive that the raps came from the top of the table. The two former members were, however, quite unconvinced, and Mr. Bradlaugh squatted on the floor, watching the table leg without, however, discovering the secret.

It is a well-known fact, that if the attention of the sitters is drawn towards the table top, from which spot they expect the raps to come, and the medium raps at the foot of the table, they will, in all probability, unanimously decide that the sounds came, not from the place where they were made, but from the spot upon which they had fixed their gaze. One cannot see a rap, and, therefore, one has to trust entirely to one’s sense of sound, which is ever deceptive. In the confession of Mrs. Culver, before alluded to, some interesting disclosures are made with respect to the manner in which the Fox girls deceived the sitters in the matter of sound.

Sometimes a professional medium, when he has established himself in a certain spot, has electro-magnets fitted up in his *séance* room, by means of which he is able to produce raps far louder and more distinct than can ever be expected to come out of the displacement of the joints. I have tried this method with considerable success; but there is this objection to it, which the spiritualists likewise recognise: the electrical apparatus is liable to get out of order, and therefore to fail at any moment, whilst the risk of discovery is considerable. On the other hand, the displacement of the joints is ever found to be a reliable, and not easily discovered method, of calling up the “spirits from the vasty deep.”

Spirit-rapping, like table-turning, has, however, seen its day, and, with the exception of an occasional *séance*, given by Mrs. Kane or Mrs. Marshall, those

rapping exhibitions which were so popular in the palmiest days of D. D. Home have disappeared from the *répertoire* of spiritualistic tricks. I need hardly, in conclusion, add that there are various other mechanical means—which it would be superfluous to enumerate—by which “spirit raps” may be produced, but I have confined myself to explaining only those methods chiefly adopted by the best known rapping mediums.

MATERIALIZATIONS are considered by the faithful the acme of “spirit manifestations.” By the theory of materialization the subjective ghosts of the memory are entirely supplanted by objective forms, who are able to eat, drink, and be merry after the fashion of mortals. This particular phase of manifestation did not present itself at the commencement of the movement, and it was only when the American public was sufficiently “educated” by the prophets of spiritualism to accept such perfection of imposture that so-called “materializing mediums” came to the front. At first only hands, feet, fingers and toes, or perhaps a head and face, were materialized, but a credulous public ever eager for new marvels, cried out for full forms, and full forms they accordingly had. I think it hardly necessary to say that there is not one genuine instance of materialization on record. It is to insult one’s common sense to ask one to believe that those who depart this life would leave the presence of our Heavenly Father at the beck and call of any ignorant impostor, who feels himself especially qualified for the task to strut about *séance* rooms in earthly shape and in earthly attire for the enrichment of rascals and the wonderment of fools.

There is hardly one so-called materializing medium who has not at some time or other been exposed, and the instances where these nefarious practitioners have been caught in the act of personating spirit forms have been very numerous. The most notable exposures are those of Egerton, of “Jack Tod” notoriety, and Herne as “John King,” at Liverpool; Sir George Sitwell’s capture of Mrs. Corner (who was so warmly endorsed by Professor Crookes), whilst personating the “spirit Marie,” and my exposure last August of the notorious Bastian whom I squirted in the eye with liquid cochineal whilst manifesting as an alleged spirit brother of mine, thus proving conclusively that the medium and the spirit were one and the same person. About this time a Mrs. Esperance was also seized at Newcastle whilst appearing as an Indian spirit “Yolandie.”

I have no hesitation in saying that every materialization is due to trickery. Every objective form hailing from “spirit land” that manifests itself is undoubtedly either the medium or a confederate suitably attired for the occasion. True it is that “spirit forms” may be produced by mirrors and lenses, but their application is awkward and but rarely resorted to.

The methods of materializing “spirits” are infinite, and were I to give you in detail the numerous little artifices resorted to by professional media in producing the manifestations, very many pages beyond what this letter itself will occupy, would be required to contain a notice of them. I will therefore confine myself to explaining the methods principally employed.

At many *séances* no tests are demanded, and all that the medium has in such cases to do is to retire behind the curtains of the cabinet and deck himself out in appropriate spirit garments carried about his person. Whilst influenced by expectant attention, many feeble-minded sitters will not fail to recognise in the grotesquely attired person of the medium an exact likeness of some dear lost one.

At some *séances*, however, “tests” are employed which the medium invariably manages to evade. Before entering the cabinet the medium, we will say, is searched by some sceptical person present, nothing being found on him. Yet, soon after he has entered the cabinet a “spirit form” emerges from it attired in spiritual raiments. This is very puzzling, and even the sceptics who undertook the search are fain to express their astonishment. There can, how-

ever, be no doubt but that the medium has either secreted the garments with which "the spirit" was attired about his person or in some part of the cabinet. In the former case, a necktie may contain a yard or so of muslin, in the hollow bottoms of his shoes may be secreted further garments, as the hollows of his arms are used to secret fine india-rubber masks, or what not. A false lining in his coat serves to contain an entire spirit dress, the threads being so arranged that he can readily manipulate the secret pocket. You also may have possibly noticed that prior to the commencement of the *séance* the medium, under some pretext or other, enters the cabinet, and that he will *afterwards* express his readiness to undergo a search. His entering the cabinet excites at the time no suspicion, but in that moment he has hurriedly slipped underneath the seat of the sofa upon which he is to recline the material with which the spirits are to be built up. Another method is for a confederate, under the pretext of seeing if the medium is in a trance, to pass spirit garments to him between the curtains. Many materializing mediums are of the gentler sex, and, as may be readily imagined, their dresses afford no end of facilities for the secretion of spiritual trappings. A well known medium confessed to the late Sergeant Cox that she used to hide a spirit dress in *her drawers*. No wonder then that a search was invariably ineffectual. Chignons, too, were very handy for secreting things.

Sometimes mediums are tied as a test; but every one knows how a street itinerant can release himself from the most intricate bonds, and for a medium to get loose from ropes far less tightly tied is by no means difficult.

All this tying and binding are in themselves elements of suspicion. If "the spirits" could come at all, they would, I venture to think, come quite as well with the medium free in full sight of the audience as when he is tied, shut up in a cage, placed in a bag, or with a net drawn over him. Neither of these ignoble tests is calculated to increase the respect of the spirits nor to further that indescribable power said to be necessary for the production of these and kindred manifestations.

At *séances* where a medium is permanently established, a trap door is nearly always let into the floor through which "visitors from the other world" in the shape of hired supernumeraries can appear. In such case the medium and the spirits—a grand proof in the eyes of the faithful—can be seen together. These credulous dupes never seem to dream of confederates.

One often hears wonderful accounts of materializations in private houses; but in all those cases no "tests" of any kind appear to have been imposed, and the medium is allowed to take his own time to produce his spirits, whether himself bedecked in muslin, or inflated skin figures skillfully manipulated by lazy tongues. Of course there is trickery in all such manifestations, and the only wonderful thing about the matter is that the sitters fail to discover wherein the trick lies.

But the simple fact is, those who habitually attend spirit *séances* are very readily deceived. In their eyes, a dirty piece of muslin is a fabric of wonderful beauty, a painted mask is a face of ethereal loveliness, whilst a vulgar medium waddling about the chamber in newspaper leggings and John King whiskers is a "noble being with a fine commanding presence." Such people never seem to look at the common-sense side of the matter. In their eyes everything is real, everything beautiful, and absolutely without guile.

To persons with minds so peculiarly constituted there is perhaps no reply; they are wedded to their idols, and, as Professor Tyndall once remarked to me, one might as well attempt to place a new core in a rotten apple as put new hearts into persons so peculiarly diseased. There are others, however, who are open to conviction, and it is to these, and to those who have not yet commenced an investigation into spiritualism, that I here address myself.

Spiritualism is a question of evidence and evidence alone, and I have, I trust, clearly demonstrated the value of some of the evidence brought forward by spiritualists as affording indubitable proof of the Immortality of the Soul. I have shown that half the manifestations are the result of trickery, whilst an equal number may be placed to the credit of self-deception. Space forbids me at the present time going further into the subject, but on a future occasion it will afford me much pleasure to place before your readers further explanations of the methods employed by so-called mediums in imposing upon the senses and in corrupting the morals of their dupes.

In conclusion, I can only trust that my letters may be productive of good results.

Believe me to be,

Your obedient servant,

STUART C. CUMBERLAND.

May, 1881.

Obituary.

DR. BREWER.

Dr. Brewer, the respected Chairman of the Metropolitan Asylum Board, died, greatly regretted, at his residence, George Street, Hanover Square, on the 3rd of November, 1881. He occupied this post from the time the Board was formed. He was the Liberal M.P. for Chelmsford from 1868 to 1874. He was a Fellow of the Royal College of Physicians, and graduated at St. Andrews in 1834. He threw his whole mind into the work of the Metropolitan Board, and laboured unceasingly and conscientiously at the oar till his death from angina pectoris.

"From the beginning to the end he worked from the pure love of the work and for the great object he had at heart, without seeking or receiving any sort of remuneration for his services."—*British Medical Journal*.

Dr. Brewer was also Chairman of the Sanitary Committee of the Metropolitan Board of Works.

JOSEPH J. BROWN, M.B., F.R.C.P.E.

In the death of Dr. Joseph John Brown our Association has lost one of the most promising of its younger members. Dr. Brown was the son of the late Dr. J. Brown, of Wooler, and studied at Edinburgh University, where he earned high distinction as a student, and graduated with honours in 1871. After acting for some time as Resident Physician for the University Clinical Wards and the Fever Wards of the Edinburgh Royal Infirmary, he became Assistant Physician at Saughton Hall Asylum, and, under the guidance of Dr. J. Batty Tuke, devoted himself with characteristic energy to the study of the microscopical appearances of the brain in insanity. In 1874 he was appointed one of the Assistant Physicians in the Royal Edinburgh Asylum. His success here was so marked that when in 1878 the office of Medical Superintendent of the Fife and Kinross District Asylum became vacant, Dr. Brown was without competition unanimously appointed to it.

To natural abilities and professional acquirements of a very high order Dr. Brown added qualities of head and heart which eminently fitted him for the special work to which he devoted himself. He had great administrative

ability; and his three and a half years of office in the Fife and Kinross Asylum were years of solid and steadily increasing prosperity for the institution. Only the day before his death he had, at a meeting of the District Board of Lunacy, read the record of a year's work manfully carried out and crowned with more than the usual meed of success. Pleasant congratulations and more substantial rewards were crowding upon him, when a sad accident rudely cut him off, while still in the flower of his manhood and with apparently a career of increasing distinction and usefulness opening out before him.

Dr. Brown contributed several papers to the "Journal of Mental Science," two of which, viz., "*Two Cases of Apoplexy of the Pons Varolii*," July, 1875, and "*Case of Transient Alternating Hemiplegia*," July, 1877, bear evidence to his careful observation of symptoms and his thoroughness in tracing out the pathology of disease. But his published papers represent only a very small part of what he had done, for he was an indefatigable worker in the field of the morbid histology of the brain and spinal cord, and he has left behind a very valuable collection of microscopical preparations, among which are included specimens of a rare and hitherto undescribed form of brain lesion. His keen desire to do thoroughly well whatever he put his hand to made him slow to appear in print; but in his investigations into the pathology of insanity, some of which still remain to be published, he did work of real and abiding value.

Of his success in the practice of his special branch of the profession, his life, short as it has been, gave abundant proof; and had he lived, his ripper years would without doubt have verified the high promise of his earlier career, and he would have won for himself a foremost place in the ranks of alienist physicians.

The social side of Dr. Brown's character was as admirable as the professional. He was eminently a sociable man, and was gifted with a vivid fancy and a keen sense of humour, the exuberant play of which, joined to real kindness of heart, made his companionship unfailingly bright and full of sunshine, without ever leaving a sting. In the words of one of his friends, Dr. Brown was "a man who had an eye for the world's flowers, and an ear for its music, and a ready hand for a friend." Among his acquaintances he has left none but sunny memories behind him; and to his more intimate friends his death comes as the loss of one whom they loved much, and whose place will not soon or easily be filled again. Dr. Brown possessed a special talent for acting, and had, when a student, appeared on the boards of the Edinburgh Theatre Royal as a member of the University Dramatic Society, his favourite parts being in broad comedy. In after-years he made this talent subserve his more serious work, and showed that he could minister to minds diseased not only as the physician proper, but also as one who took the liveliest interest in the welfare of his patients, and who spared himself no labour in providing those recreations and amusements which promote their health and happiness.

DR. GEOGHEGAN.

We regret to have to record the death in the prime of life of Dr. Geoghegan.

Ed. Geo. Geoghegan was the seventh son of Dr. T. Geoghegan, of Dublin. He was B.A., T.C.D., M.D. Strasburg; L.R.C.S.I., educated at Dublin, Edinburgh, and Strasburg Universities. He began his asylum career as Assistant Medical Officer at Morningside with Dr. Clouston, but left after a short stay to go to the West Riding Asylum, Wakefield, as Clinical Clerk; afterwards he was appointed Senior Assistant Medical Officer at Gloucester County Asylum, and resigned in July, 1880, on being appointed Assistant Medical Officer in the Portsmouth Borough Asylum, which post he held until his death. He was a

frequent and valued contributor to the "Journal of Mental Science," his last paper appearing in the April number of this year. He also published several chemical papers in German in the German periodicals. He was an industrious worker, and was possessed of considerable ability. The illness which terminated his death was typhoid fever of a most virulent type. He died Oct. 27, 1881, in the 29th year of his age.

DR. PHILLIMORE.

Wm. P. Phillimore, M.B., Medical Superintendent of the County Asylum, Nottingham, since 1855, died, aged 60, on the 21st day of November, 1881.

MR. GREEN.

Thomas Green, M.R.C.S. and L.S.A., Medical Superintendent of the Birmingham Borough Lunatic Asylum, died on the 29th of November, aged 81.

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* * It is with regret that we hear that the American Index Medicus is in danger of being discontinued for want of sufficient pecuniary support. This ought not to be. Should it really occur, it will be to the disgrace of the medical profession in this country and in the States. It is impossible to speak too strongly of its value, and too highly of the way in which the work is executed.—EDS.

Appointments.

CHRISTIE, J. W. STIRLING, L.R.C.P., to be Assistant Medical Officer to the County Asylum, Stafford.

COOPER, ERNEST F., L.R.C.P.Lond., M.R.C.S., to be Assistant Medical Officer to St. Andrew's Hospital for Mental Diseases, Northampton.

JELLY, FRED. A., M.B., C.M., to be Resident Physician to the Saughton Hall Private Asylum.

SEWARD, W. J., M.B.Lond., to be Medical Superintendent of the Male Department of the Middlesex County Asylum, Colney Hatch, *vice* Dr. Sheppard.

TURNBULL, A. R., M.B., C.M., late Senior Assistant Physician, Morningside Asylum, to be Medical Superintendent of the Fife and Kinross Asylum, *vice* Dr. Brown.

WILLIAMS, T. H., L.R.C.P.Ed., to be Senior Medical Assistant to the Glasgow Town Hospital and Asylum.

WOODS, J. F., L.S.A., late Assistant Medical Officer of the Somerset County Asylum, to be Assistant Medical Officer to the Portsmouth Borrough Asylum.

THE Honorary Secretary of the "Société Médico-Psychologique," Paris (M. Motet) informs the "Journal of Mental Science" that the following names have been added to the Society as Foreign Associates:—Drs. James Crichton Browne, Thomas Smith Clouston, Joseph Raymond Gasquet, David Nicolson, William Orange, Henry Rayner, George Henry Savage, Thomas Clay Shaw, James Rutherford, and William Wood.


THE following have been elected Honorary Members of the Association of Medical Superintendents of American Institutions for the Insane:—Dr. T. S. Clouston, Dr. C. Lockhart Robertson.

ERRATA.

In the notice of Dr. Seguin in the last number, p. 425, line 19, the name of Mr. *Cleaton* was inadvertently used instead of that of Mr. *Gaskell*.

In the President's Address, p. 338, line 24, for *late* read *last*.

In the notice of *Broadmoor*, in this number, add the name of Professor Tamburini as a visitor on the 9th of August.

 The Superintendents of Asylums are requested to send their Reports to Messrs. Churchill for the Editors.

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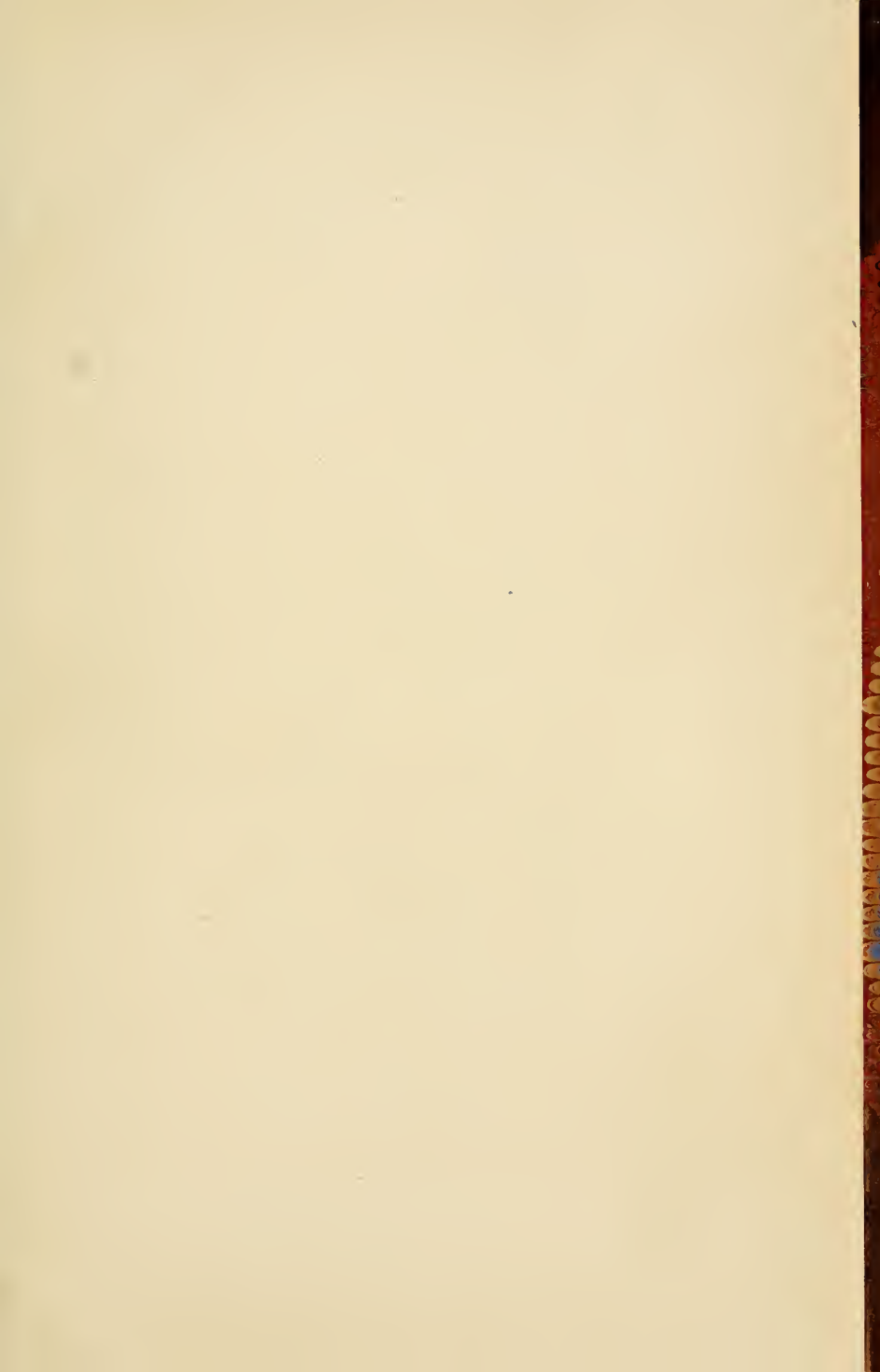
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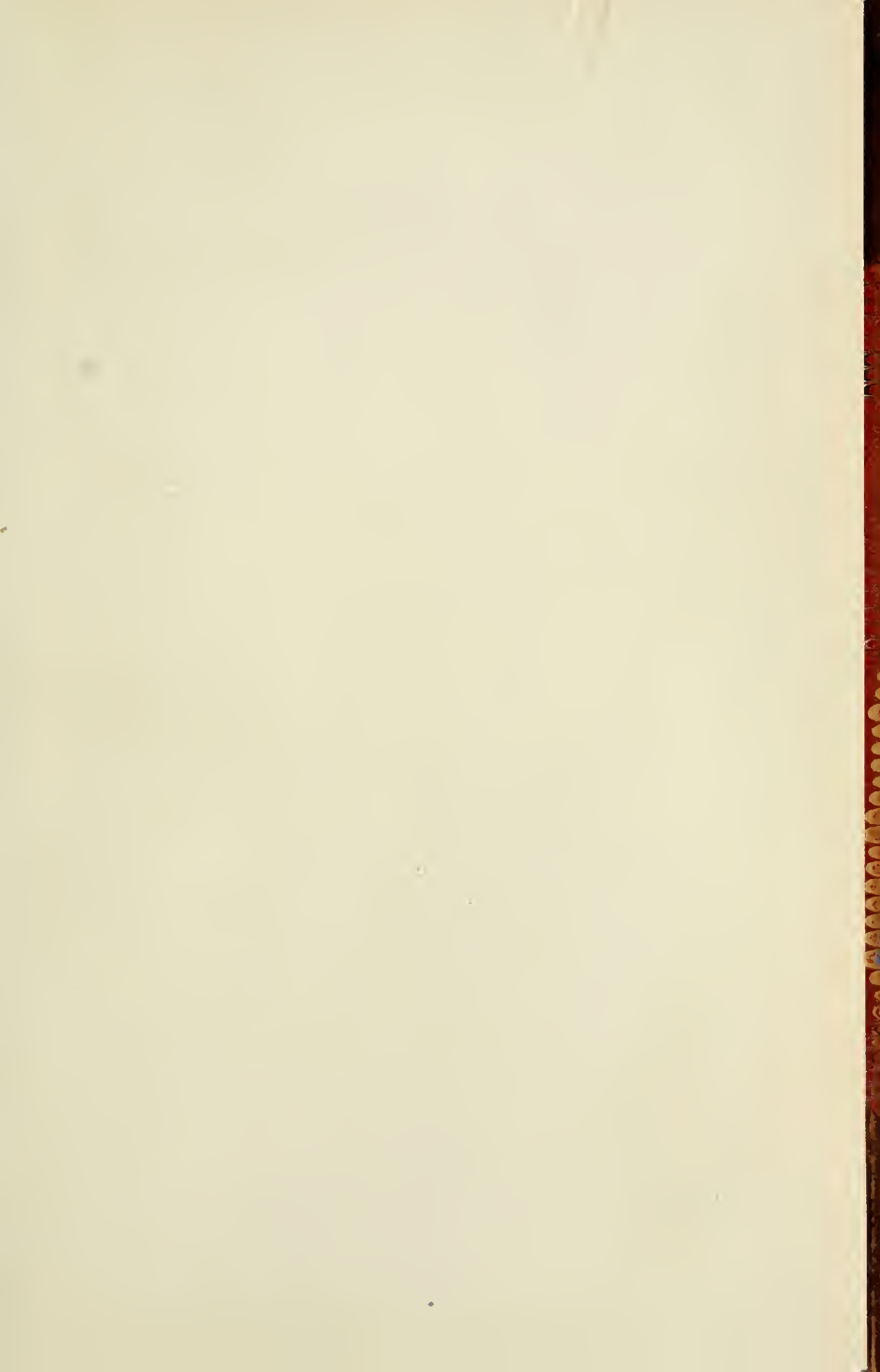
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